

## 16. Greater Priority for Infectious Disease Control

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There is an inherent tension between two kinds of public health work. While different terminology is used from time to time the two kinds of work are sometimes broadly characterized as infectious disease protection on the one hand and health promotion or population health on the other hand.

Infectious disease protection includes safe food, safe water, infection control in hospitals, day care centers and long-term care facilities, rabies control, safe water, sexually transmitted diseases, tuberculosis control, and vaccine preventable diseases. This work includes risk assessment, surveillance, case-finding, contact tracing, immunization, and infection control. It also deals with emergency response, investigation and control during outbreaks including investigation and control.

Health promotion includes programmes to prevent chronic disease and to encourage healthy eating, tobacco reduction, physical fitness, early cancer detection, prevention of injury and substance abuse, family health, sexual health, breastfeeding and other aspects of child and family life.

Infectious disease protection aims at immediate threats to public health like SARS and influenza while health promotion and population health aims at less immediate threats which make up the largest burden of disease in the community, including chronic lifestyle diseases. The work in infectious disease protection is conducted largely within the public health and health care system while the work in health promotion and population health is conducted largely through community partnerships with schools, non-governmental organizations, and the volunteer sector. One thoughtful observer suggested this was a crucial difference between infection control and health promotion, and that infection control requires more public health leadership and resources because, unlike health promotion, infection control lacks the community based allies and partners available to health promotion programmes.

The original mission of public health, historically, had mainly to do with protection against infectious disease. In the 19<sup>th</sup> century, protection from infectious disease – then a major cause of death – was the main focus of public health in Ontario. The

earliest public health legislation was an Act passed in 1833 by the Legislature of Upper Canada,

. . . to establish Boards of Health to guard against the introduction of malignant, contagious and infectious diseases in this province.<sup>162</sup>

Vaccines, sanitation, medical improvements and antibiotics reduced the burden of infectious disease, shifting patterns of morbidity and mortality from diseases like diphtheria to diseases like coronary heart disease. As infectious diseases receded in importance as a cause of death in the 20<sup>th</sup> century, public health expanded into many other program areas, especially in the fields of chronic disease and injury.

The shift in public health priorities to long-term population health promotion, coupled with the general decline in public and governmental attention to infectious disease control,<sup>163</sup> has led to the point where our public health system is not well equipped to deal with significant outbreaks of a new communicable disease. As noted in the Naylor Report:

As we have seen with SARS, questions now exist as to whether the Canadian public health system is minimally equipped and organized to deal with even a modest-sized outbreak of a new communicable disease.<sup>164</sup>

The inadequate priority for infectious disease protection has been reflected in a number of ways.

Toronto Public Health, for example, may have been the largest public health unit in the country, but it lacked sufficient infectious diseases control resources and capabilities. For example, prior to SARS, it was not meeting provincial minimum mandatory requirements for control of infectious diseases and infection control for institutions. This meant that it did not have strong representation on every hospital infection control committee in Toronto.

Toronto Public Health was not alone.

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162. Association of Local Public Health Agencies, *Orientation and Reference Manual* (Toronto: 2004), p.1.

163. See the section on “The Decline of Public Health.”

164. Naylor Report, p. 45.

As noted above, the infection control capacity of Muskoka-Parry Sound Health Unit before SARS consisted of the equivalent of less than one full-time infection control nurse. The unit also lacked public health inspectors trained in infectious disease control and there was a long-standing vacancy for an epidemiologist. And when SARS II struck, it had a freshly appointed acting Medical Officer of Health.

On the eve of the SARS outbreak, many health units were in the same position of not having a qualified Medical Officer of Health. As the Provincial Auditor stated in his 2003 report:

According to the Ministry, there is a national shortage of physicians with community medicine training to fill vacancies, and as of January 2003, there were eight boards of health without the mandated full-time medical officer of health. While there were individuals acting in the medical-officer-of-health position, according to the Ministry they may not have had all of the required qualifications for the position. At five boards, acting medical officers of health had occupied the position for over three years.<sup>165</sup>

None of the mandatory guidelines was accompanied by effective compliance monitoring. As a result, there was inadequate provincial oversight to ensure that the public health system was capable of combating an outbreak. In effect, local health units were told what infectious diseases programmes they were required to have, but no one checked to ensure they were actually implementing them – or had sufficient funding to do so.

When Part One of the Walkerton Report was released in January 2002 – incidentally, more than a year before the SARS outbreak – it recommended that the Ministry of Health and Long-Term Care verify compliance with the mandatory guidelines through regular assessments and that it,

. . . annually track trends in non-compliance in order to assess whether changes are required to the mandatory programs and whether resources require adjustments to ensure full compliance.<sup>166</sup>

However, as the Provincial Auditor noted in his 2003 report,

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165. Provincial Auditor, *Annual Report – 2003*, (Toronto: December 2, 2003), p. 225.

166. Provincial Auditor, *Annual Report – 2003*, (Toronto: December 2, 2003), p. 223.

Ministry staff informed us that, since 1998, only one assessment of a local health unit had been undertaken and that in March 2003, the Ministry began limited assessments of mandatory program areas at five local health units.<sup>167</sup>

The Commission has been informed that the Public Health Branch has begun to conduct audits of public health units.

A further example of the lack of priority given to infectious disease control by the provincial Public Health Branch is in the area of TB surveillance, where the Provincial Auditor raised some concerns in his 1997 report. However, these issues had not been fully addressed by the time of his 2003 report. The Provincial Auditor's 2003 report provides a useful snapshot of the situation in public health infection control in the days leading up to SARS – since it was based on an audit that was mostly completed before SARS.<sup>168</sup> On the continuing inadequacy of TB surveillance, the Provincial Auditor stated:

In our *1997 Annual Report*, we recommended that the Ministry should improve its ability to track individuals under surveillance for inactive TB. At that time we noted that the Public Health Branch had indicated that approximately 35 per cent of the individuals who were required to undergo medical surveillance for inactive TB by boards of health, including notifying the appropriate authorities of address changes, could not be followed up on due to missing or incorrect information such as a wrong address provided. Ministry staff also indicated at that time that Public Health Branch staff may be able to use OHIP's Registered Persons Data Base to obtain the necessary information.

Information reported by local health units to the Ministry for the 2001 year indicated that only 65 per cent of referred individuals were success-

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167. Provincial Auditor, *Annual Report – 2003*, (Toronto: December 2, 2003), p. 223.

168. See page 218 of the 2003 report by the Provincial Auditor which stated: "Our audit, which was substantially completed in March 2003, was conducted in accordance with the standards for assurance engagements, encompassing value for money and compliance, established by the Canadian Institute of Chartered Accountants and accordingly included such tests and other procedures as we considered necessary in the circumstances. The criteria used to conclude on our audit objectives were discussed with and agreed to by ministry management and related to systems, policies, and procedures that the Ministry should have in place. Towards the end of our audit, the Ministry and health service providers were coping with an outbreak of Severe Acute Respiratory Syndrome (SARS). Since our audit fieldwork was substantially completed before this outbreak occurred, our audit did not include work in this area."

fully contacted and managed by local health units in accordance with the Ministry's Tuberculosis Control Protocol. We were advised that local health units were required to inform the Ministry of those individuals who could not be contacted. However, the Ministry had not determined whether local health units were fully complying with this requirement. Procedures had also not been implemented to utilize the Ontario Health Insurance Program's (OHIP's) Registered Persons Data Base to attempt to locate individuals who had not reported to a local health unit or had not undergone a physical examination and x-ray.

To help reduce the incidence of active tuberculosis, the Ministry should enhance the effectiveness of medical surveillance by:

- ensuring that local health units consistently and appropriately complete the medical surveillance of individuals with inactive tuberculosis, including ensuring that they have undergone a physical examination and x-ray; and
- using all available sources of information, including the Ontario Health Insurance Program's Registered Persons Data Base, to track those individuals under medical surveillance who were not successfully contacted and managed by local health units.<sup>169</sup>

This tuberculosis example presents as a symptom of the inadequate priority given to protection against infectious disease.

SARS made it clear that our public health system must give greater priority to protection against infectious disease. It is equally clear, however, that our entire public health system cannot be reorganized around one disease like SARS. Many diseases produce more sickness and mortality than SARS, and the task of plugging the holes demonstrated by SARS cannot be permitted to detract public health from the task of preventing those afflictions that comprise a higher burden of disease than SARS and other infectious diseases.

As one local Medical Officer of Health noted:

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169. Provincial Auditor, *Annual Report – 2003*, (Toronto: December 2, 2003), pp. 232-3.

The concern would be [if] infection control gets funded 100 per cent because it is somehow more important than a variety of other things that public health gets involved with and so I think there would be others that would argue, and perhaps myself, that there are going to be more people that are going to be adversely affected by our rising epidemic [of] obesity and lack of activities and all of those things and yet it is infection control and the cases of SARS that has taken the spotlight, it is West Nile has taken the spotlight; . . . two men die from West Nile and all of a sudden you have a coroner's inquest. One hundred women die annually of cervical cancer in this province which is suppose to be a completely preventable cause of death, and yet no one seems to want to do anything about them.

Another Medical Officer of Health pointed out the greatest burden of disease in the community is no longer communicable disease and that chronic lifestyle diseases pose a greater long-term threat to the health of the community:

I just want to come back to a few things about diseases that public health does. I do not think that anyone has suggested that the response to SARS should be the enhancement of programs for obesity control for example, but aLPHA is making a point that in the same way that community disease control in public health has been neglected in the last few years and it is not the only area. There are other areas which are in need and may in the long run lead to problems. Public health has always been about trying to prevent what is mostly causing people to become ill and die in society. In the late 19<sup>th</sup> century that was mostly communicable disease so public health had its roots there. If you look at the top 10 causes of death in Ontario in 1880, half of them were communicable diseases. If you look at top 10 causes of death in Ontario today, there is only one communicable disease on the list and that is pneumonia and it is down on the list and usually taking elderly people who are sick with heart disease. So the picture of health has changed dramatically and so our programs have changed. If you are trying to prevent a death and whether it is a death from a heart attack or from SARS, the technology to do that is different. In the case of a heart attack we do not have a vaccine for that but we do have preventative intervention and some of which is educational. It is all about trying to change what a 10-year-old kid eats for lunch and then changes what he eats when he is 40 years old and then 50-60 and what his pattern of activity is and we know if we change those things, then we will have one less heart attack or one hundred less in a

thousand. So those are the interventions that we have early in life now that are comparable to vaccines or hand washing for communicable diseases

The importance of health promotion and the fight against chronic diseases is directly relevant to the ability of a population to withstand the onslaught of infectious disease. One Medical Officer of Health thoughtfully brought this home in the context of SARS:

If we put all our resources into communicable diseases then other kinds of disease prevention can suffer from lack of investment. Look who was at highest risk from SARS, they tended to be people with chronic disease, diabetes and other chronic diseases. It is shortsighted to put all our eggs into preventing this afternoon's problems when tomorrow's problems will become today's.

While it would be wrong to downgrade the long-term importance of health promotion and population health, the immediate threat posed by any infectious outbreak requires that a dominant priority must be given to protecting the public against infectious disease. It does not disrespect the advocates of health promotion to say that the immediate demands of public safety require that public health, as its first priority, looks after its core business of protecting us from infectious disease.

As noted in the Naylor Report there is little disagreement that:

. . . public health has essential roles in areas such as health protection (food and water safety), disease surveillance, and outbreak management, and these functions must be given priority.<sup>170</sup>

As one member of the Science Committee put it, quoted below in a different context:

. . . I maintain that of all the public health things we can do, if we don't control infectious diseases there's no point to going after cancer, cardiovascular disease, well babies and all of those things.

The tension in public health, between priority for infectious disease control and priority for long-term population health promotion, including the prevention of chronic

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170. Naylor Report, p. 19.

lifestyle diseases, is not going to go away. There is no point in arguing which is more important, because they are both important. There are however five basic reasons why protection against infectious disease should be the first basic priority of our public health system.

The first is that the threat from infectious disease is direct and immediate. The second is that an outbreak of infectious disease, if not controlled, can bring the province to its knees within days or weeks, a threat not posed by lifestyle diseases. The third is that infectious disease catches the direct attention and immediate concern of the public in a way that long-term health promotion does not. It is essential in an infectious disease outbreak that the public be satisfied that they are getting solid information from the government and that everything possible is being done to contain the disease. The fourth is that infectious disease prevention requires an immediate overall response because it moves rapidly on the ground and spreads quickly from one municipality to another and from province to province and country to country, thus engaging an international interest. The fifth is that health promotion depends largely on partnerships outside the health system between public health and local community agencies like schools and advocacy groups, allies and resources not available to infectious disease control which must stand largely on its own.

For these five reasons safe water, safe food, and protection against infectious disease should be the first priorities of Ontario's public health system.