

The Prevention and Control of Communicable Diseases in the Workplace STRATEGY PAPER

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List of Strategy Directions

Strategy Direction #1:

We need a major reinvestment in public health with appropriate staffing at all levels and for all functions. Without eroding the autonomy and the authority of workplace health and safety regimes, the existing health and safety structures within workplaces should collaborate with community health organizations and be integrated with public health provisions for the prevention and control of communicable diseases.

Strategy Direction #2:

Where health and safety regimes are inadequate for the prevention and control of communicable diseases, a specific new regulation is needed, covering biohazards and communicable diseases in the workplace. It is essential that workers in all modes of transport are specifically included in such regulations.

Strategy Direction #3:

Health care staffing at all levels must be adequate, not only to provide a high standard of routine health service and effective preventive measures for communicable diseases, but also to accommodate a major regional emergency due to an outbreak of communicable disease. Such provisions must protect workers' rights, as well as those of the public.

Strategy Direction #4:

There must be minimum standards to protect air crew from both domestic and international outbreaks of communicable diseases. International standards to protect passengers from outbreaks of major communicable diseases must be based on the requirements to protect air crew, with full protection of workers' rights.

1. General

This strategy paper deals with the prevention and the control of communicable diseases in the workplace. It aims at precaution: how to prevent the outbreak of communicable diseases and how to prevent them from progressing (spreading) – their curtailment and control. In both cases, the aim is to protect not only the public, but workers who come into contact with infected persons or the sources of infection.

The types of infectious diseases covered in the paper are limited to three central areas or categories of infection:

- 1) Infections due to **bacteria**, e.g. tuberculosis and Legionnaire's Disease;
- 2) Infections due to **viruses**, e.g. strains of influenza (flu); the common cold, Severe Acute Respiratory Syndrome (SARS); West Nile Virus; and Avian Flu;
- 3) Infections due to **moulds and fungi.** (See the Glossary for the definition of these terms.)

There are again, very roughly two types of infection covered:

- 1) local or domestic, where the problem affects a workplace, a location or a localized region within the country, e.g. Legionnaire's Disease, meningitis or fungal infections;
- 2) diseases which come into the country from abroad: without minimizing the potential severity of the local outbreaks, these "transnational" epidemics often have the potential of being very serious, such as SARS and Avian Flu. They have the potential to lead to monumental global crisis, an international pandemic.

This distinction is only a rough and ready one, since of course, domestic infections can spread across national borders. But the transnational diseases have an added dimension of importance since they inevitably involve front line workers in the transport sector and they sometimes require particular and extraordinary measures for prevention and control.

2. Routes of Transmission of Communicable Diseases

The routes of transmission are *direct* and *indirect*, the latter being divided into *vehicle-borne*, *vector-borne* and *airborne*.

Direct Transmission

This includes:

- the direct transfer of the infectious agent, such as the HIV virus (AIDS) through blood or sex, or avian flu in contaminated food;
- physical contact between an infected source (including carriers) and a susceptible person, e.g. flu; or contact with violent patients or inmates;
- direct projection onto mucous membranes of the eye, nose or mouth of a susceptible person, e.g. this is one mode of transmission of SARS; broken skin allows the entry, e.g., of hepatitis B and (in very rare cases) HIV/AIDS.

Indirect Transmission

Vehicle-borne

This includes:

- contaminated materials such as bedding, clothing, surgical instruments or dressings, cooking or eating utensils and needle stick injury. For instance, the strain of the Corona Virus causing SARS can live on exposed surfaces for at least 48 hours, double that in moist conditions; and
- indirect contact such as blood, organs, water and food, e.g. salmonella among dietary workers; hepatitis A in water, which can cause liver damage.

Vector-borne

Carried or developed within an insect, e.g. malarial mosquitoes and mosquitoes carrying West Nile Virus. A "bridge-vector" is where an insect picks up the pathogen from an infected bird or animal, then transmits it to humans.

Airborne, "droplet borne" and dust particles (usually the inhalation route)

The droplet mode of transmission occurs when droplets or residues from droplets e.g. in laboratories, cause infection, as can dust particles from infected persons, (e.g. through soiled dressings and linens in hospitals). One route for SARS and flu viruses are from close-range droplets, e.g. from sneezing. Examples of airborne pathogens are tuberculosis (TB), whooping cough and German measles. The distinction between airborne, dust and droplet transmission is important because it determines the protective measures, e.g. Personal Protective Equipment (PPE) for workers who may be exposed.

3. Communicable Diseases and Public Health Provision

At its broadest, the prevention and control of communicable diseases is a matter of public health and our first line of defense. Each province has a Public Health, Health Promotion or similar Act under which local Medical Officers of Health are given powers to protect public health. Their main requirement is over the reporting of communicable diseases. These reporting requirements consist of:

- a) a list of communicable diseases; sometime divided into categories;
- b) the identification of parties who are obliged to report the diseases; and
- c) rules about diseases reportable in the case of major outbreaks, the reporting of diseases other than those listed and reporting obligations peculiar to particular organizations, e.g. hospitals.

The examples in Appendix 2 are from the City of Ottawa and from Manitoba; they are quite typical of reporting requirements across the country. At their core, reporting requirements are similar throughout Canada. But it is important to know your own legislation as there are variations in the rules, e.g. of diseases listed; their categorization in terms of the rules about reporting and the parties who are obliged to report. In Ontario, for instance, physicians, hospitals, laboratories, school principals and child care facilities must report cases of persons who are or may be infected with a listed disease.

The Medical Officer of Health is then empowered to implement prevention and control measures, including quarantine, isolation of persons or premises, curtailment or modification of operations such as boil-water requirements, the closing of all or part of operations and vaccinations of selected groups of persons in defined locations. There are no national standards of reporting or action requirements; the new Public Health Agency of Canada is not a federal or national health authority and it has no executive powers.

One of the causes of poor national health is the erosion of public health provision. Staff such as public health and school nurses have been cut back, with the loss of education for children, parents and teachers. Social conditions have worsened, particularly for vulnerable groups such as Aboriginal peoples, migrant workers, immigrants, poor and homeless people. Air and drinking water pollution have weakened people, making them more vulnerable to infection, for example, through compromised immune systems.

One of the biggest failings in public health is a failure to see the workplace both as a source of infection and as a bulwark against disease, in which the union has an indispensable role. Appendix 1 is an extract from a recent book, a co-author of which is David Butler-Jones, the first Chief Public Health Officer of Canada and CEO of the Public Health Agency. No workplaces are listed among "organizations" (elsewhere schools are mentioned once) and all responsibilities are those of employers or managers. They in turn deal with health issues among employees, but not the large range of health issues which come under the heading of Occupational Health and Safety. This is a travesty: it means that the prevention and control of communicable diseases, which are a part of health and safety, are excluded from the purview of capacity building. The contribution to public health of unions and progressive employers is left out of the picture – to the detriment of public health and disease prevention.

We would, of course, have to guard against the danger of the occupational health and safety authority offloading its enforcement activities onto a public health agency that has no understanding of rights, responsibilities and standards under health and safety legislation.

Strategy Direction #1:

We need a major reinvestment in public health with appropriate staffing at all levels and for all functions. Without eroding the autonomy and the authority of workplace health and safety regimes, the existing health and safety structures within workplaces should collaborate with community health organizations and be integrated with public health provisions for the prevention and control of communicable diseases.

4. Communicable Diseases and the Workplace (1): General

This section applies to all workplaces except the broader health care sector (defined in the next section) and it includes workers who deal in a major way with the public such as social workers, bus drivers, teachers, child care workers, office workers and the retail trade. It deals with the rules over occupational health and safety and what unions do in workplaces to protect workers' health.

In law and in practice, the employer has a responsibility to provide a safe and healthy workplace. Among the main factors to realize this are:

- safe and healthy *working conditions*, including indoor air quality which in turn includes control of humidity, measures against overcrowding and good sanitary conditions;
- safe and healthy *work organization*, such as rules limiting the draconian or arbitrary powers of managers, rules limiting hours of work, shift work, work operations and rules governing employees' control over the work process;
- information, education and training of workers;
- high health and safety standards, meeting or exceeding the legislated rules; and
- an industrial relations regime that respects collective bargaining, workers' rights and workers' participation, e.g in joint union-management health and safety committees.

In the British Columbia (BC) WCB Regulations, the employer must ensure that work is performed without undue risk and there must be a hazard/risk exposure plan, reviewed annually. Personal Protective Equipment (PPE) must be used only as a last resort. Exposure control plans are required, among other circumstances whenever a worker has or may have occupational exposure to a blood borne pathogen or to other biohazardous material as specified by the WCB. Workers must be provided with education and training over the exposure control plan and working safety with or near potentially hazardous material. Records of exposure to biohazardous materials must be kept, along with records of training sessions. The employer must provide free vaccination against hepatitis B on request, where there is potential or actual exposure to the hepatitis B virus.

Section 6.36 of the BC WCB Regulations is worth quoting in full:

- 1) Engineering and work practice controls must be established to minimize or eliminate the potential for exposure to biohazardous material.
- 2) Personal protective equipment must be worn to shield workers from biohazardous material.
- 3) Housekeeping practices must be designed to keep the workplace clean and free from spills of biohazardous materials.
- 4) Work procedures must ensure that laundry contaminated with biohazardous material is isolated and bagged and handled as little as possible.
- 5) All regulated waste must be disposed of in accordance with federal and provincial and local regulations.
- 6) For blood borne pathogens, the employer must implement a system of universal precautions for all tasks and procedures identified as having a potential for occupational exposure under section 6.35.

There are also detailed rules protecting and supporting emergency responders, physicians and workers in health care facilities, including emergency departments.

The BC WCB rules are among the best in the country. On the assumption that the employer takes full practical responsibility for a safe and healthy workplace, that there are more than adequate health and safety regulations and that they are properly enforced, the question we have to ask ourselves is this: Is there a need for a separate regulation covering biohazardous materials and communicable diseases? The reason for asking the question is that we are arguably living in a new era of biohazards at work and in society. At its most basic, colds, flu and respiratory illness have become year-round and endemic. We have only to consider the fact that such sickness is a major cause of ill-health among the workforce, causing great discomfort and loss of income, with corresponding loss to the employer in the production of goods and services and lowered productivity.

Families are profoundly affected too, since family members who suffer such sickness in workplaces and in child care facilities pass on the conditions to other family members and friends.

There is also the threat of global pandemics, of which the two of obvious current concern are SARS and avian flu. This means that there have to be additional precautions in workplaces generally, not just in the health care sector. One of these additional measures could be medical monitoring, dealt with below.

Most of the provisions for workplace protection are structural in that they concern conditions of work, organizational factors and work procedures. Proper building maintenance and a clean, efficient general ventilation system, with control of humidity, would largely eliminate the hazards of moulds and fungi. An example of poor structures concerns Canadian bank workers, who get far less protection than their European counterparts, usually lacking screens between the worker and the client. This is a physical security factor, but it is also a barrier against the transmission of droplet borne infectious agents. Beyond structural changes, attitudes and personal precautions have to change, which are a matter of education. For instance, hand washing and hand protection are now much more of a requirement for workplaces generally, not just for the health care sector.

The Case of Ground Transport Workers

Here, the main subjects of concern are public and inter-city bus drivers, as well as clerical, supervisory and maintenance personnel. These workers are critical to the public transportation infrastructure and are also at great risk of being infected by communicable diseases. The very nature of their work brings them into contact with a variety of people and, potentially, a variety of risks of infection. The very work environment also contributes to the spreading of disease, such as bus stations, platforms, facility washrooms, offices with public access and high-occupancy vehicles. Risks are compounded by the fact that the work environment is often characterized by a lack of proper ventilation and the recycling of contaminated air in ventilation and air conditioning systems.

The Amalgamated Transit Union-Canada has proposed a five-point plan for ground transport workers, which the CLC endorses:

- 1. Flu vaccines be made available to public transportation workers at no cost;
- 2. Post-Infection Treatments such as anti-viral drugs to be made accessible wherever they are relevant;
- 3. Non-Pharmaceutical Measures.

As part of an occupational health regulation, planning in the area of communicable diseases should be required, covering:

- prevention measures comparable to those in the BC WCB Regulation, discussed above, including proper ventilation, a social distancing policy and a system for protecting workers against contaminated items such as discarded needles;
- emergency planning to be a high level management responsibility;
- plans to be both internally and externally focused;
- plans to include both industry sector coordination as well as regional coordination;
- plans to describe response team structure, communication, reporting and a response checklist;
- plans to identify recovery priorities and a business resumption plan;
 and
- plans to reaffirm the workers' legal right to refuse unsafe and unhealthy work.
- 4. Protection from assaults, including a legal requirement for blood samples from perpetrators; and
- 5. Mandatory first aid training with all the proper ancillary equipment such as masks, gloves, proper resuscitation equipment, medical hygiene products and cleaning supplies.

Medical Monitoring

Medical monitoring of the health status of workers, is usually done with the use of invasive techniques such as blood and body fluid samples. Unions such as CEP, the CAW and the OFL have developed positions on medical monitoring. The characteristics of these positions are:

- medical monitoring must only be used for clearly established and valid prevention and control purposes;
- data from medical monitoring must be used for these purposes and these purposes only;

- workers' rights over informed consent to the procedures and confidentiality must be protected; and
- workers' income and livelihood must not suffer as a result of the medical monitoring regime.

These are pre-conditions for asking the question: How could medical monitoring contribute to the prevention and control of infectious diseases in the workplace? Answers are hard to find. There is, for instance, no case for mandatory HIV/AIDS monitoring in the workplace (see Appendix 1 on HIV/AIDS in the Workplace) since the system of precautions and rights that have been developed are sufficient to control the spread of the disease in the workplace. However, there is a role for unions, particularly in health care, to get HIV/AIDS Voluntary Counseling and Testing (VCT), carried out in facilities independent of employers, with full protection of confidentiality. There is a theoretical possibility for very serious diseases where workers may be a hidden carrier of the disease and may be an infectious agent for extended periods of time. It is again hard right now to identify such diseases and ones where mandatory medical monitoring would serve a useful purpose.

Strategy Direction #2:

Where health and safety regimes are inadequate for the prevention and control of communicable diseases, a new specific regulation is needed, covering biohazards and communicable diseases in the workplace. It is essential that workers in all modes of transport are specifically included in such regulations.

5. Communicable Diseases and the Workplace (2): The Broader Health Care Sector

This section covers the broader health care sector, such as hospitals, surgeries, nursing homes, chronic care, community health providers and assisted living facilities, as well as emergency responders such as police, fire, ambulance and paramedics. In these cases, the basic rules covering workplaces generally will also cover the broader health care sector. For community health providers, the new reality of communicable diseases means that training in precautions and procedures is of particular importance. *The Final Report on Infection Control in Community Settings* stresses time and training on new infection control procedures; a fall-back to the higher level of precaution whenever there is disagreement; the importance of hand hygiene; the proper provision of PPE and the importance of disinfection and decontamination of the work environment.

Before looking at the positive strategy directions, it is worth looking at the inadequacies and deficits of the whole sector. None of these criticisms detract from the positive and hugely important role that workers and their unions have played in the achievements of the broad Canadian health care system. The system is *our* system and we are proud of it.

Inadequacies and Deficits

1. Inadequate staffing at all levels and in most types of facility

One key area here is understaffing of unionized staff and contract cleaning staff, who are poorly trained and insufficient in numbers to ensure basic levels of hygiene. Too few nurses and cleaning staff result in poor sanitization in health care facilities. This includes staff, unionized and contract, being told not to clean rooms unless they are visibly soiled. In one case, an employer in ambulance services directed attendants not to send used blankets to laundry after use, to reuse them on the next patient unless they were visibly soiled. The basic message, that staffing and cleanliness are the cornerstones of infection control, are being deliberately subverted. Hospitals and related facilities have become major sources of infection in their own right. Nurses are terminally cleaning beds and equipment when cleaning staff are not on shift. Cleaning staff even morph into dietary and porter staff to serve food and transport patients/clients in the same uniforms they wear to clean the toilets and infected patient care areas. Volunteers in health care facilities are taking on hygiene-related work for which they are untrained and ill-equipped.

2. Over-reliance on Universal Precautions as the only method of infection control

Universal precautions and their more comprehensive variant, Body Substance Precautions (BSP) work on the presumption that all patient blood and body fluids are potentially or actually infected by blood-borne diseases such as HIV-AIDS and hepatitis B. With Universal Precautions, there has been a corresponding reduction in the tried and true techniques of isolation until proven safe (including the nurse's right to isolate a patient until lab results prove otherwise), double-bagging of infected materials and the closing of infected wards to the public. This has resulted in the spread of infections both within and between facilities.

3. Immunization has become the "quick fix" for new diseases

The number of immunizations per worker will quite likely lead to an autoimmune crisis among these workers, as years of continued immunization to on-going mutating viruses breaks down the body's natural immune system. Immunization cannot protect people from mutating viruses, which are an increasing concern, e.g. with avian flu.

4. Overuse of bacterial soaps and hand washes

These are becoming the norm, similarly removing natural flora which protect the average person from becoming critically ill with casual contact. Such products are in any case now known not to be any more effective than conventional soaps. This is of course a general societal problem, leading, paradoxically to an increase in infections. Within the health care sector, bacterial soap is best used for emergency and specialized situations.

Strategies and Solutions

1. A sound and effective public health system

This is the first line of defense, not only for the general public, but for health care workers in particular. Some of the improvements were listed in the section above on Public Health Provision: we need major reinvestment in public health with appropriate staffing at all levels and for all functions, especially those in the front line of infection prevention and control. Public health education is a general "must" for all of us, but also for specific occupations such as teachers in schools and child care facilities, with the health care provider and public health associations as a driving force.

2. Adequate staffing levels in health care facilities

From the point of view of communicable diseases, adequate staffing at all levels is needed; the key in infection prevention and control is trained, full-time, publicly employed, cleaning and waste workers

3. A resurrection of the "old" isolation techniques

This includes the discretionary powers of health staff when in doubt; also the separation of infected medical from surgical patients. Regrettably, the rights of visitors have to be curtailed, partly as an infection control tactic and partly to stop visitors being surrogate caregivers at the expense of the professional staff.

4. A moratorium on mass immunization of workers

Immunization should be targeted at the prevention of localized outbreaks of particular diseases. This is not to say that routine (non-mandatory) immunization of health care workers, e.g. against tetanus and hepatitis B are not needed. Where employers, as opposed to Medical Officers of Health, have ordered vaccinations of workers, unions have successfully challenged these orders at arbitration. This does not, of course, address the issue of coming to work without such vaccinations. In practice, those workers who cannot take a vaccine for medical or religious reasons, are moved away from direct patient contact during the outbreak of the disease. "Medically fragile" people should consider the flu vaccine, in consultation with their health care provider.

5. An end to the overuse and "prophylactic" use of antibiotics

Drug companies should be kept out of doctors' offices and antibiotics used selectively for remedial purposes.

6. Discouraging the production and use of anti-bacterial soaps

These are best only for institutional and emergency use and are not needed in the average home.

7. Levels of precautions must reflect levels of hazard.

For example, in the SARS epidemic, intubation of a patient was a very hazardous procedure for the health care worker, so that the highest level of PPE (full body suits and forced air respirators) should have been worn. This level of precaution was not necessary for lower hazard situations.

Workers' Rights and Collective Bargaining in the Broader Health Care Sector

The threefold rights of workers are all applicable to the prevention and control of communicable diseases:

- the right to refuse when exposure to biohazards is needless or arbitrary or which lies outside a known or agreed plan;
- the right to participate in the planning for the prevention and control of communicable diseases, along with the production of better safety models; and
- the right to information, education and training: no secrecy around an actual or potential outbreak, with proper training on infection prevention and control.

Bargaining issues have included deployment of staff during an emergency; emergency staff scheduling; emergency premiums and protection from disadvantage; resolution of the impact of restrictions to work during a crisis, including those indirectly affected; training in emergency plan implementation; training in specific health and safety issues during a crisis (including stress); the handling of workers requiring accommodation during a crisis, including quarantined, pregnant and immuno-suppressed workers; and free immunization, which is to be entirely voluntary. Most of these involve the idea of being "made whole" as a result of a crisis and its consequences. So important are these issues in a major outbreak such as SARS, that there is a case for requiring that the employer not take such issues off the bargaining table: the union should have the right to bargain to impasse.

Most of these areas again ought to be the subject of common standards that are fair to health care workers. This is true also of workers' compensation: all cases of communicable diseases among health care workers should be compensable. Comparisons with other industries and occupations suggest that there should be a schedule of communicable diseases where there is a presumption of work-relatedness in cases among health care workers.

Strategy Direction #3

Health care staffing at all levels must be adequate, not only to provide a high standard of routine health service and effective preventive measures for communicable diseases, but also to accommodate a major regional emergency due to an outbreak of communicable disease. Such provisions must protect workers' rights, as well as those of the public.

6. Communicable Diseases and the Workplace (3): Air Transport

The key factor in the spread of communicable diseases over national boundaries is air travel. Domestic air travel is a transmission factor in the localized spread of communicable diseases, so much so that air travelers routinely complain of contracting such diseases by flying. A decade ago, this was a minor problem, so it is useful to ask how this has come about. One reason is that colds, respiratory diseases and various strains of flu have become endemic, year-round; air travel is a common mode of transmission, so there is a high contagion rate among air travelers: the longer the flight and the more closely packed the travelers, the more transmission there will be. Air crew are particularly vulnerable because they are of course frequent fliers, spending far more time in the air than even the most itinerant business passengers. Vulnerability of air crew is increased by two factors in particular. Air in passenger aircraft rarely meets the industry standard, so that general cabin air does not circulate as frequently as it should and contains too high a portion of recycled air, giving pathogens more than a single opportunity to infect. Second, hygiene rules to protect air crew have not kept pace with the amount of "available" sources of infection, e.g. hand protection and storage facilities for waste and soiled food containers.

These simple facts are the key, not only to domestic sources of infection, but international ones too. Whatever else is needed to protect international air crew, they at least are entitled to a uniform standard of protection, whatever the length of the flight and its origin and destination. There is a good case to be made for saying that the protection of air crew is a minimum standard for the protection of the public, since the standard should be based on the predicament of the most vulnerable, not on the basis of the average.

The SARS epidemic gives us useful knowledge on how to protect air crew and passengers from international communicable diseases. The SARS outbreak is characterized by human to human transmission, which is not (yet) the central case for avian flu. Clearly, for such diseases, the world community needs to develop a major research program into the causality of such diseases and modes of transmission, of treatment options for anticipated diseases and the most efficacious control programs. Just as important, is research to enable us to predict and counter new types of epidemic. We cannot base programs simply on "what we know from experience at this point in time." For international communicable diseases we need to develop rapid screening antibody tests, the goal being to prevent travel by infected persons, then a contact information system for all passengers and air crew and rapid notification. Rules that apply to passengers exposed to infection must also apply to air crew, with full protection of workers' rights as explained in the previous section. This will require collaboration between national health

authorities and the International Air Transport Association (IATA) in such a way as to cover all air transport carriers. We will also require the production of safe vaccines against known pathogens and the production of safe vaccines, *not as a routine prophylactic measure*, *but to be used in situations where air crew are particularly vulnerable*.

Strategy Direction #4

There must be minimum standards to protect air crew from both domestic and international outbreaks of communicable diseases. International standards to protect passengers from outbreaks of major communicable diseases must be based on the requirements to protect air crew, with full protection of workers' rights.

Notes on Particular Cases: (1) The SARS Epidemic

The SARS epidemic in Canada affected hundreds of people and led to 44 deaths, including three health care workers, two nurses and a doctor. Clearly, health care workers are a highly vulnerable sector of the population and their protection is paramount. The SARS epidemic is more important for its potential danger than for what it did, having been less lethal so far than the accumulated annual deaths from West Nile Virus. During the epidemic, suspected SARS cases in Toronto were quarantined in rooms with a controlled air supply; anyone entering the room wore a mask, gloves and gown. Subsequently, research indicated that close contact and high risk procedures assisted the spread of the disease; with a recommendation that the patients themselves wear masks. It was also found that the quality of general ventilation and frequent handwashing by caregivers during treatments were positive factors in infection control. The epidemic pointed up the need for health care workers to be involved in the prevention and responses for communicable diseases, and proper training, with a strong emphasis on maintaining the psychological status of staff during an outbreak. Clearly, the planning for an outbreak involves the maintenance of staffing levels and workload issues during the crisis. When the epidemic subsides, there is an obvious role for the union in bringing together member worker groups for information exchange, lessons learnt and the continued updating of best practices.

In learning lessons from the SARS epidemic, it is instructive to compare Toronto with Vancouver, where the response to SARS was arguably more effective than in Toronto, where the Asian disease arrived via Vancouver. The main differences were:

- Vancouver had a centralized response system where Toronto's was decentralized;
- as a result, Vancouver's system had leadership, communication and coordination while Toronto's did not;
- Vancouver expected serious communicable diseases to arrive from Asia while Toronto did not;
- because of its preparedness, Vancouver assumed, when faced with a serious disease, that it was infectious and imposed isolation immediately; and
- Vancouver involved the relevant unions through joint health and safety committees while Toronto did not.

The result was 44 deaths in Toronto and none in Vancouver.

Notes on Particular Cases (2): Moulds and Fungi in Buildings

Moulds and fungi are living microorganisms that thrive on moist surfaces/materials and humid workplace air. Examples are mildew and the toxic mould, *stachbotrys chartarum*. This mould, found in health care facilities, produces toxic chemicals which are carcinogenic. Many of the health effects of moulds are flu-like, but they also cause asthma, respiratory and systemic infection, skin irritation, behavioural effects due to a compromised nervous system and suppression of the immune system, resulting in susceptibility to infection. Both pathogenic and non-pathogenic moulds can harm human health. The prevention of illness due to moulds and fungi almost always involve measures to remove standing water, damp, moisture and humidity from the workplace, including the Heating, Ventilation and Air Conditioning System (HVAC). The removal of moulds is hazardous and requires a technical operation.

GLOSSARY

Bacteria

Bacteria are the simplest form of life, being single-celled microorganisms. Examples of bacterial diseases are whooping cough, tuberculosis (TB), salmonella, tetanus, streptococcus, anthrax, E. Coli and Legionnaires. Bacterial diseases are treated with antibiotics.

Communicable disease

Usually the same as an infectious or contagious disease. Any disease that is transmissible by infection or contagion, either directly or through the agency of a vector.

Fungi

Fungi (funguses) are plants or microorganisms which obtain their food from living or dead tissues of other plants or animals. **Moulds** e.g. on bread are a type of fungus. Infections from fungi are called **mycoses.** Examples of fungal infections are ringworm and thrush.

Pathogen

An organism capable of causing disease.

Virus

Viruses are even smaller than bacteria and cause infection only through working in a "medium" such as a bacterium. Some examples of viral diseases are SARS, hepatitis, West Nile, flu, smallpox and rabies. Immunization (vaccination) helps prevent viral diseases.

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APPENDIX 1

HIV/AIDS in the Workplace

This strategy paper reflects the ten key principles of the 'ILO code of practice on HIV/AIDS and the world of work' which apply to all aspects of work and all workplaces, including the health sector.

The ILO Code of Practice (2001): HIV/AIDS and the world of work

- 1. **Recognition of HIV/AIDS as a workplace issue** because it affects the workforce and because the workplace can play a vital role in limiting HIV transmission and effects.
- 2. **No discrimination** or stigma against workers on the basis of real or perceived HIV status.
- 3. **Gender equality** because more equal gender relations and the empowerment of women are vital to preventing the transmission of HIV and helping people to manage its impact.
- 4. **Healthy work environments** to minimize occupational risk, and to ensure the workplace is adapted to the health and capabilities of workers living with AIDS.
- 5. **Social dialogue** because successful policies and programs are best implemented through cooperation and trust between employers, workers and governments.
- 6. **No screening of workers** for purposes of exclusion from employment or work processes, and no screening of job applicants. Testing must be voluntary and confidential.
- 7. **Confidentiality** to protect all workers' personal data, including HIV status.
- 8. **Continuation of employment** in appropriate conditions as long as workers are medically-fit to work (ref. accommodation rights).
- 9. **Prevention** through information, education and addressing socioeconomic and behavioural factors must be carried out by the social partners in the workplace.
- 10. **Care and support** must be provided to workers, including access to social security, affordable health services and benefits from statutory and occupational schemes.

General working population

In the past two decades in Canada, some workplaces have seriously fallen behind in relation to HIV/AIDS. In the meantime, the epidemic is growing here as in the rest of the world. An estimated 56,000 people in Canada were living with HIV infection (including AIDS) at the end of 2002, which represents a **12% increase** from the estimate of 49,800 at the end of 1999. There were an estimated 2,800 to 5,200 new HIV infections in 2002, approximately the same as in 1999.

There are now an estimate of 64,400 to 71,600 people living with HIV/AIDS in Canada. About a third of them are un-diagnosed yet and thus unaware of their HIV positive status. Most of them are workers. Others are supported by working family members. Canadian communities most vulnerable to HIV/AIDS remain (not necessarily in this order):

- the poor (including aboriginal people and people of colour among them, women in particular);
- drug users and their sexual partners;
- sex workers (and their clients and clients' partners);
- men and boys having sex with men;
- new immigrants and Canadians returning from most affected countries (mainly Africa and the Caribbean, but also Asia and Central/Eastern Europe among them women in particular) and the communities within which they integrate here in Canada.

All of these communities have one thing in common: they are minorities within the broader Canadian public, equality-seeking groups, and as such they are not properly targeted nor reached by resources available for mainstream public information and intervention to help prevent HIV/AIDS or mitigate its impact. These workers are often poorly protected by unions.

Given the positive role played by organized labour in most affected countries, the Canadian labour movement is increasingly expected to get more involved in helping control HIV/AIDS by:

• campaigning for reviewing national and provincial labour codes and legislation on HIV;

- running effective prevention and anti-discrimination campaigns among workers (a captive target group, clearly identified and located in one place, as opposed to "the Public");
- bargaining for HIV policies and language in collective agreements (for prevention, anti-discrimination provisions, duty to accommodate, care and treatment, surviving family benefits);
- pushing multinationals and other big employers to adopt corporate responsibility programs on HIV/AIDS for their workers, overseas and at home, and thus paving the way for smaller employers.

In Canada, many collective agreements and legal instruments dealing with HIV/AIDS in the workplace date from the 1980s, prior to the existence of ARV treatment. At the time, the main concern was to prevent transmission at work. As a result, little provision was included for reasonable accommodation of workers living with HIV/AIDS, because in most cases their health condition deteriorated quickly and they died.

Today, most national unions should review workplace policies and re-negotiate collective agreement to ensure that HIV/AIDS is treated as other chronic illnesses. Provincial laws and regulations on chronic illness and long-term disability should also be reviewed to ensure that workers with HIV/AIDS, entitled to administrative and practical adjustments, can remain employed as long as possible.

Unions also have a particular responsibility to combat stigma and discrimination against co-workers living with HIV, which remain very harsh particularly when coupled with homophobia, racism or xenophobia. Stigma and discrimination are also powerful obstacles to people's willingness to get voluntary counseling and testing, to disclose their status when they are found to be HIV-positive and to access care, treatment and reasonable accommodation once they become ill.

Health service workers

It is important to further elaborate on the specific challenges posed by HIV/AIDS in the health sector. As an example, it may be necessary to offer HIV testing of health care workers before and during allocation to areas of high risk to themselves, such as multidrug-resistant tuberculosis (MDR TB) wards. The

new HIV/AIDS practices in health service settings may, once again, be useful to controlling the spread and mitigating the impact of other communicable diseases.

To address the specific needs of health sector workers, a set of *Joint ILO/WHO* guidelines on health services and HIV/AIDS were recently adopted (2005). The UNAIDS, the ILO and the WHO developed these guidelines in order to assist health services in building their capacities to provide their workers with a safe, healthy and decent working environment, as the most effective way both to reduce transmission of HIV and other bloodborne pathogens and to improve the delivery of care to patients (p.4).

The Joint Guidelines propose social dialogue and cooperation, but also specific roles to be played by the legislators, the employers and the workers' unions. In several countries heavily affected by the HIV pandemic, tripartite dialogue on HIV/AIDS in the workplace is now taking place, leading to the adoption of national codes, legislation, workplace policies and programs, and comprehensive benefit schemes.

The new Guidelines cover a wide array of issues to be considered, including: the legal and policy framework; the health sector as a workplace; occupational health and safety; the management of exposure incidents; the programs for care, treatment and support of workers (including testing,

Reasonable Accommodation Joint ILO/WHO guidelines on health services and HIV/AIDS (2005)

Reasonable accommodation refers to administrative or practical adjustments that are made by the employer to help workers with an illness or disability to manage their work. Workers with AIDS-related illnesses seeking accommodation should be treated like workers with any other chronic illness, in accordance with national laws and regulations. Employers, in consultation with workers and their representatives, should take measures to reasonably accommodate on a case-by-case basis. These could include:

- (a) rearrangement of working hours;
- (b) modified tasks and jobs, including modification in the case of HIV-positive workers who may be at risk (see paragraph 11) or pose a risk to patients by virtue of their performing invasive procedures (see paragraph 52);
- (c) adapted working equipment and environment;
- (d) provision of rest periods and adequate refreshment facilities;
- (e) granting time off for medical appointments;
- (f) flexible sick leave;
- (g) part-time work and flexible return-to-work arrangements.

job security and promotion); the workers' knowledge, education and training; and the need for research and development.

In Canada, the risks of acquiring the virus at work is the chief most preoccupation of health workers in relation to HIV. The HIV/AIDS Epidemiology and Surveillance Division, Centre for Infectious Disease Prevention and Control, Population and Public Health Branch, Health Canada, prepared a document in 2003 on the risk of HIV transmission associated with particular behaviours. Some of the information contained in "Overview of the Estimated Per-Act Probabilities of HIV Transmission" follows:

- Needle Stick Injury: The average risk of HIV infection per single needle stick injury when the source is HIV-positive is 0.32%. This risk depends on several factors and, in general, is greater if the source patient has a higher viral load (e.g., immediately after HIV infection), if the injury is a deep one, and if there is accidental injection of material into the exposed person.
- Blood Transfusion: Approximately 90% to 95% risk of transmission from transfusion of one unit of HIV-infected blood.
- Injecting Drug Use: Estimated risk of 0.67% in the sharing of injection equipment.
- Mother-to-Child Transmission: 20% to 25% estimated risk in the absence of antiretroviral treatment.
- Sexual Exposure Through Heterosexual Penile-Vaginal Intercourse: Slightly higher risk from men to women (0.05% to 0.6%) than from women to men (0.03% to 0.4%).
- Sexual Exposure Through Male-to-Male Penile Anal Intercourse: Unprotected receptive anal intercourse with an HIV-positive man, with ejaculation, risk ranges to 0.5% to 3%.
- Sexual Exposure Through Oral Intercourse: There is evidence that HIV transmission can occur through oral intercourse, but it appears to be lower than anal or vaginal intercourse.

Clearly, the risk involved for health workers is very limited as it is almost exclusively related to needle stick injury. One factor that may raise the risk for health workers is the fact that a considerable number of people living with HIV/AIDS refuse to disclose their status. In 2002 and 2003, Health Canada's Federal/Provincial/ Territorial Advisory Committee on HIV/AIDS organized a roundtable of experts from diverse backgrounds in the field of HIV/AIDS. They

included physicians, psychologists, psychiatrists, public health officials, lawyers, and persons with HIV/AIDS who work in the community. The prime objective of the roundtable was to provide advice on the development of a framework for the non-disclosure of HIV/AIDS for consideration by the provinces and territories. The assessments and recommendations of the expert roundtable are summarized in 'Persons who fail to disclose their HIV/AIDS status: Conclusions reached by an Expert Working Group' (Canada Communicable Diseases Report, Volume 31-05, 1 March 2005), for consideration by public health officials and other professionals and community workers in the provinces and territories.

Participants at the roundtable considered the following principles to be central to the development of a framework on the non-disclosure of HIV/AIDS:

- Prevention should be the primary objective. The framework should be based fundamentally on a public health rather than a criminal law approach.
- The "least intrusive, most effective" approach to intervention should be followed.
- The focus should be on the risk of transmission posed by particular behaviours. Behaviours should be placed in risk categories.
- The response to the failure to disclose should be proportional to the risk of the particular behaviour.
- Specific measures should not be prescribed but, rather, a list or menu ought to be provided to health care providers and public health officials to consider in the particular circumstances.
- If a person engages in risky behaviour and discloses his or her HIV status to a sexual or drug injection partner, the health care provider should nonetheless counsel the HIV-infected person to modify the risky conduct.
- Due process and Charter of Rights must be respected in interventions
 that are imposed by the state on the individual. This includes advance
 notice of the intervention, the right to counsel, timely reviews of
 decisions rendered, the right to a fair hearing, and the right to appeal
 decisions.

On [Voluntary] Medical [Consulting and] Monitoring

Along with the key principles of HIV testing known as the "3 Cs", voluntary medical monitoring must be provided on the basis of informed *Consent* and be accompanied by *Counseling*, while *Confidentiality* must be strictly ensured.

There should be no exception for health workers, who also have the right to those "3 Cs". In January 2004 in Montreal, a medical surgeon practicing at a major Canadian children's hospital, died of AIDS. It was then found out that nearly no-one in the hospital knew her HIV/AIDS status and an intense public debate broke-out about the rights and duties of surgeons in particular and health workers in general. Should they be bound to disclosure or did they also have a right to confidentiality? Could they still practice, once they knew their status?

Should they be regularly submitted to mandatory testing as a condition for being allowed to practice? The debate went on for months.

The *Collège des médecins du Québec* enquired and released a report on April 1st, 2004. The physicians body subsequently released a position statement titled "The Physician and Blood-borne Pathogens" on April 27, 2004 (available on their website). Their conclusions are interesting. For one, they do not recommend mandatory testing:

The Collège des médecins du Québec does not, therefore, recommend systematic screening of its members. Mandatory and systematic screening for preventive purposes is a measure known to be medically unnecessary and potentially harmful. Indeed,

- one cannot screen for all blood-borne pathogens;
- blood tests have their limitations;
- the results provide information on past exposures only;
- one cannot guarantee against future infections;
- one cannot establish a periodicity for blood testing;
- one cannot guarantee an absence of risk even with screening.

However, the position statement they issued contains five broad guidelines, synthesized here:

 Physicians must apply universal precautions for the prevention of infections.

- Physicians exposed in a personal or professional context to blood-borne pathogens must know their status regarding these infectious agents.
- Physicians must consult an attending physician if they are infected.
- Infected physicians must have their professional practice assessed initially and periodically by a committee of experts, if they perform exposure-prone procedures. They must then comply with the recommendations made by this committee.
- Physicians must know and respect the Code of Ethics of Physicians (which includes several more guidelines that are applicable to these cases).

Because of privacy, trust and confidentiality issues, experience with HIV/AIDS workplace programs in other countries have demonstrated that the various forms of voluntary consulting and monitoring work best when promoted by unions or peers rather than by management, and when counseling, testing and monitoring are carried out outside the workplace by a health facility independent from the employer.

The principles and best practices in HIV/AIDS Voluntary Counseling and Testing (VCT) should apply to all forms of medical monitoring in workplace settings and, we thus recommend that the CLC be promoting Voluntary Medical Consulting and Monitoring (VMCM) as opposed to unqualified medical monitoring.

Figure 6.1

The basic elements of organizational health promotion capacity

Basic elements of capacity Category

- Commitment Health promotion is valued at all levels of the organization.
 - There are a shared vision, a mission, and strategies for engaging in population health promotion to address the determinants of health.
 - Walking the talk: policies, programs, and practices are consistent with the organization's vision, mission, and strategies.
 - Partnerships are valued and nurtured both across the organization and with diverse external organizations and communities.

Culture

- Styles of leadership and management empower health promotion practice, foster lifelong learning, and support healthy working environments.
- Positive and nurturing relationships are fostered among employees.
- Communication is open and timely, enabling employees to solve problems, learn from mistakes, and share successes.
- Critical reflection, innovation, and learning are fostered.

Structures

- Health promotion is a shared responsibility, being an integral part of job titles, job descriptions, and performance evaluations among at least several employees.
- There are effective policies and practices of human resource recruitment, retention, and professional development.
- There are participatory, empowering, and evidence-based practices for strategic planning, needs assessment, program planning, and evaluation.
- Employees are organized into work teams that promote intrainstitutional collaboration.

Resources

- A significant number of employees in key positions and units have high levels of individual capacity for health promotion.
- Adequate funding is provided for the programmatic and infrastructural costs of engaging in health promotion activities.
- Appropriate infrastructure exists, including office space, capital equipment, technology, and effective means of communication.
- Active engagement with communities brings additional resources.

APPENDIX 3

CITY OF OTTAWA PUBLIC HEALTH AND LONG-TERM CARE BRANCH REPORT OF DESIGNATED COMMUNICABLE DISEASES TO THE MEDICAL OFFICER OF HEALTH (MOH)

Under the Ontario *Health Protection and Promotion Act*, physicians, hospital operators, laboratory operators, school principals and child care facilities must report to the local MOH any person who, in his or her opinion, is or may be infected with an agent of one of the communicable diseases listed below. Your co-operation in reporting will help to ensure prompt and complete follow-up of cases. Please report according to the schedule outlined below.

Category 1: Diseases requiring IMMEDIATE public health follow up: Report immediately by telephone at 724-4224 during office hours. During evenings and week-ends report to the MOH on call at 580-2400.

Category 2: Any known or suspected <u>outbreaks</u> should be reported immediately as per category 1. Please ensure delivery of other cases by courier the next working day or telephone 724-4224.

Category 3: Sexually Transmitted Diseases. These diseases should be reported to the SEXUAL HEALTH CENTRE on the next working day at 560-6099.

Category 4: No immediate action – may be delivered weekly by mail, in batches. Schools, day cares and nurseries may also report by calling 724-4224. Specific forms are available for chickenpox reporting and these may be sent in on a monthly basis.

·	
CAT. DISEASE	CAT. DISEASE
3 - AIDS (Acquired Immunodeficiency	1 - Hemorrhagic fevers, including:
Syndrome)	i. Ebola virus disease
2 - Amebiasis	ii. Lassa Fever
1 - Anthrax	iii. Marburg virus disease
1 - Bites of dogs, cats & suspected rabid animals	iv. Other viral causes
1 - Botulism	1 - Hepatitis A
2 - Brucellosis	3 - Hepatitis B
2 - Campylobacter enteritis	3 - Hepatitis C
3 - Chancroid	4 - Hepatitis D (Delta hepatitis)
4 - Chickenpox (Varicella)	3 - Herpes, neonatal
3 - Chlamydia trachomatis infections	3 - HIV infection
1 - Cholera	4 - Influenza, Types A, B, & C
2 - Cryptosporidiosis	2 - Legionellosis
2 - Cyclosporiasis	4 - Leprosy
4 - Cytomogalovirus infection, congenital	2 - Listeriosis
1 - Diphtheria	4 - Lyme Disease
Encephalitis, including:	4 - Malaria
2 - Primary, viral including West Nile virus	1 - Measles
4 - Post-infectious	1 - Meningitis, bacterial
4 - Vaccine-related	2 - Meningitis, viral
4 - Subacute sclerosing panencephalitis	1 - Meningococcal disease, invasive
4 - Unspecified	2 - Mumps
1 - Food poisoning, all causes	3 - Ophthalmia neonatorum
1 - Gastroenteritis, institutional outbreaks	1 - Paratyphoid Fever
2 - Giardiasis	2 - Pertussis (Whooping Cough)
3 - Gonorrhoca	1 - Plague
1 - Haemophilus influenzae b, invasive	1 - Poliomyelitis, acute
1 - Hantavirus Pulmonary Syndrome	

- 2 Psittacosis/Omithosis
- 2 Q Fever
- 1 Rabies
- 1 Respiratory Infection Outbreaks in institutions
- 2 Rubella
- 4 Rubella, congenital syndrome
- 2 Salmonellosis
- 1 Severe Acute Respiratory Syndrome (SARS)
- 1 Shigellosis
- 1 Smallpox
- 1 Streptococcal infections, Group A invasive
- 4 Streptococcal infections, Group B neonatal
- 4 Streptococcal pneumoniae, invasive
- 3 Syphillis
- 4 Tetanus

- 4 Transmissible Spongiform Encephalopathy, including:
 - a. Creutzfeldt-Jakob Disease, all types;
 - b. Gerstmann-Strassler-Scheinker Syndrome
 - c. Fatal Familial Insomnia: and

DISEASE

- d. Kuru
- 2 Trichinosis

CAT.

- 2 Tuberculosis
- 2 Tularemia
- 1 Typhoid Fever
- Verotoxin-producing E. Coli infections and indicator conditions including Hemolytic Uremic Syndrome (HUS)
- West Nile Virus, suspect or confirmed with encephalitis, viral meningitis, meningoencephalitis, acute flaccid paralysis or Guillain-Barre Syndrome
- 1 Yellow Fever
- 2 Yorsiniosis

COMMUNICABLE DISEASE CONTROL Diseases Reportable by Health Professionals (HP) and Laboratories (L)

Communicable diseases are monitored and controlled under legislation of *The Public Health Act* (*Diseases and Dead Bodies Regulation*). Those diseases identified by an asterisk (*) shall be reported to the Director, Communicable Disease Control as soon as possible by telephone (204-788-6739) or similar rapid means of communication acceptable to the Director (fax 204-948 -3044). Those diseases identified by a dagger (†) are sexually transmitted diseases.

†AIDS (HP)	Pneumococcal invasive disease
Amoebiasis (HP, L)	(any normally sterile body site) (HP, L)
*Anthrax (HP,L)	*Polio (HP, L)
*Bacillus cereus (HP, L)	Psittacosis (HP, L)
*Botulism (HP, L)	Q fever (HP, L)
Brucellosis (HP, L)	*Rabies (HP, L)
Campylobacter (HP, L)	Relapsing Fever (HP, L)
†Chancroid (HP, L)	Reye's Syndrome (HP, L)
†Chlamydia (HP, L)	Rickettsial Diseases, Other (HP, L)
*Cholera (HP, L)	Rocky Mountain Spotted Fever (HP, L)
*Clostridium perfringens	Rubella (HP, L)
(except wound specimens) (HP, L)	Salmonella (HP, L)
Congenital Rubella Infection/Syndrome (HP, L)	*Salmonella typhi (HP, L)
Cryptosporidium (HP, L)	Shigella (HP, L)
Creutzfeldt – Jakob Disease (HP, L)	Staphylococcus aureus, Food Poisoning (HP, L)
Dengue Fever (HP, L)	*Staphylococcal Toxic Shock Syndrome (HP, L)
*Diphtheria (Cases and Carriers) (HP, L)	*Methicillin Resistant <i>Staphytlococcal aureus</i> (L)
Encephalitis (HP, L)	*Vancomycin Resistant <i>Staphylococcal aureus</i> (L)
Fish Tapeworm Infection (HP, L)	*Streptococcal invasive disease (Streptococcal
*Food Poisoning (Other unspecified) (HP, L)	toxic shock syndrome, necrotizing fasciitis,
Giardia (HP, L)	necrotizing myositis) (HP, L)
†Gonorrhea (HP, L)	†Syphilis (HP, L)
Hantavirus (HP, L)	*Tetanus (HP, L)
*Haemophilus Influenza B invasive disease (HP, L)	Toxoplasmosis (HP, L)
Hemolytic Uremic Syndrom (HP, L)	Trichinosis (HP, L)
Hepatitis A, †B, C, Viral (Other) (HP, L)	Trypanosomiasis (HP, L)
†Human Immunodeficiency Virus (HIV) (HP, L)	Turbercolosis (Primary, Respiratory and Non-
Legionellosis (HP, L)	respiratory, Bacteriologically confirmed and
Lerposy (HP, L)	Non-bacteriologically confirmed) (HP, L)
Listeriosis (HP, L)	Tularemia (HP, L)
Lyme Disease (HP, L)	*Typhoid Fever (HP, L)
Malaria (HP, L)	Typhus (HP, L)
*Measles (HP, L)	Vancomycin Resistant Enterococci (L)
*Meningitis (Other bacterial) (HP, L)	Verotoxin-producing organisms (HP, L)
*Meningococcal Invasive disease (HP, L)	*Vibrio parahemolyticus (HP, L)
Mumps (HP, L)	*Viral Hemorrhagic Fever (HP, L)
Parapertussis (HP, L)	* Viral Meningitis – outbreaks only (HP, L)
Parasitic Diseases, Other (HP, L)	*Western Equine Encephalitis (HP, L)
Penicillin resistant pneumococci (HP, L)	*Yellow Fever (HP, L)
*Pertussis (HP, L)	*Yersinia infections (HP, L)
*Plague (HP, L)	/2

Diseases Reportable Only During Outbreaks or in Large Proportions in a Community

Chickenpox Impetigo Influenza Pediculosis Ringworm Scabies

These diseases are reportable by health professionals and laboratories by number or percentage only.

Diseases Reportable Only by Hospitals

Rheumatic Fever Post Streptococcal Glomerulonephritis

These diseases are in addition to the diseases listed above.

Reporting of Other Communicable Diseases

Health Professionals and Laboratories shall report other and rare communicable diseases to the Director within 24 hours of becoming aware that an individual is suffering from a communicable disease that is not referred to above if:

- a) the disease is occurring in an outbreak:
- b) further cases are amenable to prevention;
- c) the disease is common but presents with unusual clinical manifestations; or,
- d) the disease is potentially serious.

For information describing the management of notifiable diseases refer to the *Communicable Disease Control Protocol Manual* and *Management Protocols for the New Reportable Communicable Diseases in Manitoba*. Copies may be obtained by calling 204-788-6737.

If more information is required, contact your public health office, regional Medical Officer of Health or Chief Medical Officer of Health.

FROM: Communicable Disease Management Protocol Manual: Manitoba