18. Paediatric Services

> Even before the epidemic ended, New York City Health Commissioner Royal Copeland estimated that twenty-one thousand children in the city had been made orphans by the epidemic. He had no estimate of the number of children who lost only one parent.
>
> The Great Influenza, J.M. Barry

Health care providers and organizations caring for children during an influenza pandemic will face unique issues and challenges. This is the first iteration of OHPIP that looks specifically at the needs of children and the health care settings that care for them.

18.1 Objectives

- To highlight issues for health care settings caring for children during an influenza pandemic.
- To identify possible strategies to meet the needs of children.

18.2 Factors Affecting Paediatric Care during a Pandemic

Children are at greater risk of infection and complications from influenza, and of spreading the virus

Children of all ages who have certain chronic conditions and otherwise healthy children under age 24 months are hospitalized for influenza infection and its complications at rates similar to the elderly. Children under age 5 are more likely to become ill than older children.

Because children shed the greatest amount of virus for the longest period of time, require more "hands-on" contact and are less likely to comply with infection control practices (e.g., handwashing, covering their cough) they are more likely to spread the virus.

Social, public health and other concerns may have an impact on services for children

Because children are more likely to spread the virus, public health authorities may consider measures such as closing schools and day care (i.e., social distancing) as a way to reduce transmission. However, closing schools and daycares will put more pressure on parents who will have to give up work to care for their children or make other arrangements. It may also lead to young people gathering in other community settings (e.g., shopping malls) (See chapter 6, Public Health Measures).

During a pandemic, the risk of spread among children may be exacerbated by the fact that some children may remain unimmunized even after an effective vaccine becomes available. A small number of parents traditionally refuse vaccine, and their decision could have an impact on community health and on the types of public health measures required to contain the spread of the virus.

Influenza manifests differently in children, and will require different treatment

Influenza can be difficult to diagnose in children. Symptoms may be more non-specific in children than adults, and children are more likely to have gastrointestinal symptoms (i.e., vomiting, diarrhea). It is also more difficult to differentiate between concurrent diseases in children than adults.

Caring for children with influenza will be complicated because:

- current antiviral agents are not approved for use with children under age 1
- resistance to oseltamivir appears to occur more frequently in children when treating seasonal influenza
- children may also require different treatment than adults for complications, such as pneumonia.

Influenza will also be a particular risk for newborns, particularly if the mother has influenza or contact with someone with influenza. Depending on the virus, breast milk of mothers with influenza may be unsuitable for feeding their babies.

Parents and other adults play a key role in caring for children at home and in paediatric settings. During a pandemic, parents and other caregivers may be too ill to provide care for their children. That will affect not only the individual child's care but the surge capacity in paediatric care setting, which will have to plan for the space required to accommodate parents who can stay with their child as well as the extra health care providers who will be required if parents are too ill to help with care.

Parents' reliance on family physicians for paediatric care.
Although adults may accept influenza advice from public health units, telehealth, and other general sources, many parents will want to speak to their family physician about their children's health. Family physicians may require support to manage requests for care of children during a pandemic.

18.3 Strategies to Meet the Needs of Children, Youth and Families

To protect children's health and meet their and their family's needs during an influenza pandemic, the health system must:

- communicate effectively with all families
- provide age-appropriate information for children and youth
- implement infection control and consider public health measures to reduce the spread of influenza among children
- consider the need for child care services, particularly for the children of workers critical to societal infrastructure
- provide appropriate care for children with influenza, including care providers, equipment, supplies and laboratory support
- provide psychosocial support for families.

Communication and education activities, infection control and public health measures, the need for child care services, and the health human resources issues associated with caring for children have been incorporated into the relevant sections of OHPIP (see Chapter 8, 11 and 12). In addition, the ethical framework for decision-making in a pandemic has been revised to include values specific to caring for children and youth, including family-centred care and respect for young people's emerging autonomy (see Chapter 2).

This section deals specifically with the paediatric services required to provide care for children with influenza and other health care needs, and to support families during a pandemic.

18.4 Providing Influenza Care for Children

Children who develop influenza will access the health care system in the same way as adults: through Influenza Assessment, Treatment and Referral Centres (see Chapter 11). Parents/caregivers will be encouraged to call Telehealth, where they will be

directed to the appropriate setting.

Because influenza manifests differently in children, an algorithm will have to be developed to help determine the type of care required and the settings where care would be delivered (e.g., home, clinic, doctor's office, assessment/triage centre, community general hospital, rehabilitation and special needs agencies, tertiary paediatric hospital). The following paediatric-specific protocols, tools, and databases will also have to be developed:

- case definition, identification and surveillance
- contact tracing, reporting, and monitoring (when appropriate)
- laboratory sampling and testing
- clinical evaluation and management guidelines
- medications (antivirals, antibacterials, vaccines and other medications)
- transfers/transport between facilities (particularly CCU/ NICU)
- admission, management and discharge guidelines.

Settings will establish procedures to manage the consent issues associated with providing care for children including:

- consent to treatment and discharge planning if caregivers of hospitalized children are themselves hospitalized or unable to provide care
- naming substitute decision makers if parents or other family members are unavailable.

The health risks to pre and post partum women, neonates and children will also be taken into account in the province's antiviral and vaccine strategy.

Although parents will be encouraged to contact Telehealth and use community assessment centres, many may continue to rely on their family physicians for their children's care. To ensure children receive the right care at the right time, primary care providers will need tools, such as triage guidelines, care algorithms, information for staff in their offices (e.g., receptionists, nurses), and timely access to advice from community paediatricians. To enable community paediatricians to play that consulting leadership role with public health units and family physicians, they will also need supports.

To ensure the best care for children and family members in isolation/quarantined at home, the system must plan to provide critical services and supplies (i.e., food, water, shelter, medicines and medical consultations, mental health and psychological support services, other supportive services such as child care, schooling, and transportation to medical treatment, if required).

18.5 Maintaining Obstetrical and Paediatric Care during a Pandemic

During a pandemic, Ontario must maintain the capacity to provide obstetrical services and critical paediatric services. Settings that provide these services now should work together to consider the following:

- develop regional obstetrical and paediatric strategies including designating settings within the region to fulfill certain roles and responsibilities
- establish standards governing access to different settings/types of care (e.g., patients < 12 years should be treated at paediatric facilities; > 12 at an adult acute facility)

- develop an inventory of current and surge capacity (e.g., acute care beds; special needs beds; birthing suites; NICU; PICU; transport services)
- develop mutual aid agreements between settings and/or regions to optimize hospital and non-hospital management of paediatric cases
- assess the equipment, supplies and resources required to maintain obstetrical and paediatric services in each setting (e.g., home, clinic, doctor's office, community general hospital, rehabilitation and special needs agencies, tertiary paediatric hospital, transport)
- coordinate paediatric transfers and transport, with specific focus on tertiary perinatal, neonatal and paediatric transfers; clarify the role of private transfer services during the pandemic
- identify non-traditional sites that could be used to help provide paediatric services – including plans for appropriate supplies and human resources at these sites
- establish pre-natal and antenatal care protocols to ensure that there is a system in place to meet the needs of normal and high-risk pregnancies (e.g., earlier discharges for vaginal births – such as a six-hour length of stay following childbirth which is consistent with current midwifery practice; telephone consults in lieu of hospital visits for healthy moms/ healthy newborns)
- identify adequately resourced home or alternate birthing sites to free hospital capacity and protect healthy women and babies from exposure to influenza during labour, birth and postpartum
- identify alternative feeding sources if breast milk of mothers with influenza is considered unsuitable.

18.6 Providing Psychosocial Support

During an influenza pandemic, parents and families may need psychosocial support to help them cope with fear, the illness of a child, frustration over the lack of treatment options (i.e., no vaccine), decision-making about a child's care, the stress of having family members isolated, the competing demands of caring for ill family members and work, and multiple deaths among the family and friends.

Local pandemic plans will:

- identify psychosocial services and resources available to help children, youth and caregivers cope, including cultural and faith groups, teachers, school social workers, psychologists, guidance counselors, hospital-based chaplains and other helping professionals
- develop strategies to facilitate death rites, funeral rituals, grief and bereavement in the context a pandemic.

The issues of psychosocial support and grief and bereavement services will be covered in more depth in future iterations of OHPIP.

18.7 Maintaining Education

During a pandemic, every effort must be made to help children lead a normal life, including continuing school. The Ministry of Education and school boards need to plan alternative education strategies for the ill or convalescing child and for all children in the case of school closures.

18.8 Next Steps

MOHLTC will continue to work with paediatric service providers to refine plans to provide care for children during a pandemic.

References

American Academy of Pediatrics: Addresses the needs of children in the event of an influenza pandemic. (http://www.org/advocacy/washing/112105PandemicInfluenza.pdf)

California Department of Health Services Immunization Branch. Information on Comforting Restraining for Immunization

(http://www.dhs.ca.gov/ps/dcdc/izgroup/news.htm)

WHO Directions for the Vaccination of Children (http://www.who.int/child-adolescent-health/publications/referral_care/)

Woods, C.R, and Abramson, J.S. (2005). The next influenza pandemic: Will we be ready to care for our children? The Journal of Pediatrics 2(147), 147-155.

Romig LE. Pediatric triage. A system to "JumpSTART" your triage of young patients at MCIs. JEMS 2002; 27(7):52-53.