

Guidance Document for the Management of Animals in Child Care Centres, 2016

This document supports the Infection Prevention and Control in Child Care Centres, 2016 (or as current) under the Ontario Public Health Standards.

Population and Public Health Division,
Ministry of Health and Long-Term Care

May 2016

Acknowledgements

The Ministry of Health and Long-Term Care's (MOHLTC's) Public Health Policy and Programs Branch (PHPPB) would like to thank the Working Group Members involved in developing this document:

Elizabeth Choi, Chair, MOHLTC

Dr. Erika Bontovics, MOHLTC

Dr. Catherine Filejski, MOHLTC

Melissa Helferty, MOHLTC

Dr. Carole Craig, MOHLTC

Duri Song, MOHLTC

Dr. Karen Gowdy, Public Health Veterinarian

Dr. Scott Weese, Ontario Veterinary College, University of Guelph

Kerri Graham, Ministry of Education

Ahava Trivedi, Ministry of Education

Dina Khait, Ministry of Education

Yvonne Whitfield, Public Health Ontario

Dr. Bryna Warshawsky, Public Health Ontario

Craig Lawrie, Ministry of Labour

Louis McCann, Pet Industry Joint Advisory Council

Jacynthe Lacroix, Pet Industry Joint Advisory Council

Greg Tarry, Canada's Accredited Zoos and Aquariums

Pamela Khan, Durham Region Public Health

Diane Durk, Wellington-Dufferin Guelph Public Health

Mike Zimmerman, Ministry of Community Safety and Correctional Services

The MOHLTC's PHPPB would also like to acknowledge the work of the MOHLTC's Planning, Research and Analysis Branch who conducted the literature review used to develop this document:

Michael Campo

Terence Chan

Michael Hillmer

Andrea Procter

Purnata Shirodkar

Glossary of Terms

Child Care Centre: a premises operated by a person licensed under the Child Care and Early Years Act, 2014 to operate a child care centre at the premises.

Exotic animal: a non-domesticated animal kept within human households, not traditionally considered a typical pet; animals that are not native to Ontario.

Farm animal: domestic animals typically raised for use or for profit, such as cattle, horses, poultry, swine, goats and sheep.

Programming area: the premises licensed under the Child Care and Early Years Act, 2014, including both indoor and outdoor areas (e.g. parking lot, playground).

Resident animal: any animal permanently housed at the child care centre.

Visiting animal: any animal that is introduced into the child care centre on a temporary basis.

Wild animal: non-domesticated animals native to Ontario.

Zoonotic disease: any disease that is spread from animals to people.

Table of Contents

| | | |
|-------|---|----|
| 1 | Introduction | 5 |
| 2 | Purpose | 5 |
| 3 | Roles and Responsibilities | 6 |
| 3.1 | Public Health Units | 6 |
| 3.2 | Ministry of Education | 6 |
| 3.3 | Licensed Child Care Operators | 7 |
| 4 | Infection Risks in Child Care Centres | 8 |
| 4.1 | Populations at Risk | 8 |
| 4.2 | Infections from Animal Contact | 9 |
| 4.2.1 | Gastrointestinal Infections | 9 |
| 4.2.2 | Salmonellosis in Reptiles/Amphibians | 10 |
| 5 | Injuries from Animals | 10 |
| 6 | Animals and Allergies | 11 |
| 7 | Animals Not Recommended for Child Care Centres | 11 |
| 8 | Animals Not Recommended for Children Under Five Years of Age | 12 |
| 9 | Infection Prevention and Control Recommendations (IPAC) | 13 |
| 9.1 | Prior to Animal Contact | 13 |
| 9.1.1 | Preparation of Infection Prevention and Control Policies and Procedures | 13 |
| 9.1.2 | Consultation with Parents/Guardians | 13 |
| 9.1.3 | Animal Health Documentation | 14 |
| 9.1.4 | Education of Staff, Volunteers, Students, and Children | 14 |
| 9.2 | During Activities with Animals | 15 |
| 9.2.1 | Supervised Activity | 15 |
| 9.2.2 | Hand Hygiene | 15 |
| 9.2.3 | Food Safety | 17 |
| 9.2.4 | Animal Food and Treats | 17 |
| 9.2.5 | Clean-Up of Blood or Body Fluids | 18 |
| 9.3 | After Activities with Animals | 18 |
| 9.3.1 | Cleaning and Disinfection | 18 |
| 9.3.2 | Monitoring for Infections | 19 |
| 10 | Additional Guidelines on Visiting Animals | 19 |
| 10.1 | Health and Well-Being of Animals | 20 |
| 10.2 | Record-Keeping | 21 |
| 11 | Additional Guidelines on Resident Animals | 21 |
| 11.1 | Cleaning and Disinfection of Enclosures | 22 |
| 12 | References | 23 |
| | Appendix 1 Infectious Diseases from Visiting/Resident Animal Contact | 27 |
| | Appendix 2. A Veterinary Care Statement for Resident Animals in Child Care Centres | 31 |
| | Appendix 2. B Veterinary Care Statement for Animals Visiting Child Care Centres | 33 |

1 Introduction

Child care centres licensed under the *Child Care and Early Years Act, 2014* (CCEYA) often incorporate animals into their program activities with children. Animals in these settings, whether as resident animals housed in the facility or as short-term visiting animals, can be a valuable learning tool and can stimulate children's interest in, curiosity and appreciation of nature. As described in [How Does Learning Happen? Ontario's Pedagogy for the Early Years](#) a growing body of research suggests that connecting to the natural world contributes to children's mental, physical, emotional and spritual health and well-being.¹ Providing opportunities to explore, care for, and interact with the natural world helps to strengthen these connections. While animals can pose a risk of infectious disease transmission and injury, particularly for infants and children under the age of five years,^{2,3,4,5} measures can be taken to minimize these risks while offering children these important opportunities.

The [Ontario Public Health Standards](#) (OPHS) specify the minimum public health programs and services that all 36 public health units in Ontario must provide. The OPHS are published by the Ministry of Health and Long-Term Care (MOHLTC) under section 7 of the Health Protection and Promotion Act (HPPA). The OPHS are supported by protocols that further delineate expectations for carrying out the standards' requirements. The [Infection Prevention and Control in Child Care Centres, 2016 \(or as current\)](#) provides direction to public health units for the delivery of advice, consultation and inspection(s) with respect to infection prevention and control practices in child care centres.

2 Purpose

The purpose of this document is to provide guidance to public health units to assist child care centres in the management of animals and planning and implementation of infection prevention and control measures in these settings. This document is intended to be used by professional staff employed by public health units as they plan and execute their responsibilities under the HPPA and the OPHS. It is anticipated that use of this document will facilitate consistency in managing animals in child care centres across public health units.

Information in this document provides more detail on animal-related information than is covered in *Well beings: A Guide to Health in Child Care* (Canadian Paediatric Society, 2008 or as current).⁶ Where information between these two resources differ, the recommendations in this guidance document should take precedence.

This guidance document may also be useful in other settings such as other child care settings, schools, retirement homes, hospitals, correctional facilities, shelters, recreational camps and group homes – although not all the information in this document will be applicable to all settings.

For recommendations on visits to petting zoos, animals exhibits, fairs and farms, please refer to *Recommendations to Prevent Disease and Injury Associated with Petting Zoos* (MOHLTC, 2011 or as current) available at:

http://www.health.gov.on.ca/en/pro/programs/publichealth/oph_standards/guidance.asp
[x](#)

Box 1: Purpose of Boxes throughout the Guidance Document

Information that may be particularly important to communicate to child care centre operators has been highlighted for quick reference in boxes such as this throughout this document. However, public health units are encouraged to highlight other information based on the specific needs of the child care centre operator.

3 Roles and Responsibilities

Outlined below are the mandated roles and responsibilities of public health units, the Ministry of Education and licensed child care operators as they directly or indirectly relate to planning, enforcement, or implementation of infection prevention and control policies and protocols in child care centres.

3.1 Public Health Units

Public health units work closely with organizations involved in fostering a safe and healthy environment for children enrolled in, and staff employed by, child care centres.

The mandated responsibilities of public health units in these centres are outlined in the *Infection Prevention and Control in Child Care Centres Protocol, 2016* (or as current). Under the *Infection Prevention and Control in Child Care Centres Protocol, 2016*, public health units are mandated to conduct activities for the purposes of reducing the risk of infectious disease transmission in these centres. Some of these requirements include:

- Working closely to consult with child care centre operators on their infection prevention and control policies and procedures;
- Conducting an annual inspection with respect to infection prevention and control practices;
- Assisting licensed child care centre operators in the management of outbreaks, and
- Providing educational resources and in-service education.

3.2 Ministry of Education

The Ministry of Education has regulatory and enforcement roles for the operation of licensed child care settings. Pursuant to the *Child Care and Early Years Act, 2014* (CCEYA), in Ontario, anyone who cares for more than five unrelated children under the age of 13 years must be licensed by the Ministry of Education under the CCEYA. This includes home-based child care and centre-based child care. At least once a year, Ministry of Education staff conduct inspections of child care centres and home child

care agencies, including a sample of home child care providers (*i.e.* contracted by licensed agencies), to:

- make sure that provincial standards are being met;
- issue and renew licenses; and
- monitor operators who are having difficulty meeting licensing standards.

Ministry of Education staff also investigate complaints about licensed child care programs and persons who may be contravening provisions in the CCEYA regarding the supervision or care of children.

3.3 Licensed Child Care Operators

Operators of child care centres and home child care agencies have responsibility for the operation and management of the premises which are regulated, including the program and the financial and personnel administration, as per Ontario Regulation 137/15 under the CCEYA.

Ontario Regulation 137/15 includes several provisions which obligate the child care centre operator to comply with requirements set by the medical officer of health (*i.e.* the public health unit). This includes:

- compliance with any requirements by the medical officer of health prior to obtaining a licence;
- ensuring compliance with health-related recommendations made by the medical officer of health;
- ensuring staff and children have immunizations recommended by the medical officer of health, and
- permitting the medical officer of health or designate (*i.e.* public health inspector or public health nurse) to inspect administrative records of the child care centre or home child care agency.

Additionally, Ontario Regulation 137/15 made under the CCEYA requires operators to ensure that every dog and cat that is kept on the premises of a child care centre or home child care location is vaccinated against rabies.

Under the HPPA, licensed child care operators have a duty to report any suspected or confirmed communicable or reportable diseases specified under Ontario Regulations 558/91 and 559/91 respectively, within their setting to the medical officer of health (*i.e.* public health unit). Ontario Regulation 557 also requires licensed child care operators to report any animal bite or other animal contact that may result in rabies in persons (*i.e.* all mammal bites) to the medical officer of health (*i.e.* public health unit).

Box 2: Child Care Centre Operator Reporting Requirements under the *Health Protection and Promotion Act*

- Child care centre operators with knowledge of a suspected or confirmed case of a reportable disease (as per O. Reg 559/91) in the child care centre they operate are required to report this to their local public health unit.
- For the full list of reportable diseases, please see the web site:
http://www.e-laws.gov.on.ca/html/reg/english/elaws_regs_910559_e.htm

Box 2: Child Care Centre Operator Reporting Requirements under the *Health Protection and Promotion Act*

- It is important to note that increases in illness in a child care centre above what is normally expected should be reported to public health, regardless of whether or not a reportable disease has been confirmed.
- All mammal bites to humans are immediately reportable to the local public health unit (as per O.Reg. 557).

Licensed child care operators also have reporting responsibilities as employers under the *Occupational Health and Safety Act (OHSA)*. If workplace injuries or illnesses occur, the child care operator must ensure that appropriate individuals and/or agencies are notified, as per the OHSA. Reporting requirements under OHSA can be viewed at the following website: <http://www.labour.gov.on.ca/english/hs/incident.php>

Box 3: Ministry of Labour Health & Safety Contact Centre

Call 1-877-202-0008 any time to report critical injuries, fatalities, occupational illnesses and work refusals. Call 8:30 a.m. to 5 p.m. Monday to Friday for general inquiries about workplace health and safety. **Always call 911** in an emergency.

4 Infection Risks in Child Care Centres

Children are exposed to many common infections in child care settings that result in respiratory and enteric illnesses from contact with their peers, as well as animals, if these are present. In general, zoonotic diseases from animals are transmitted through direct and indirect contact as outlined in Box 4 below.

Box 4: Transmission of Zoonotic Infection

| Direct Contact | Indirect Contact |
|---|--|
| Feeding, touching or handling animals, bites, scratches and licks from animals, and kissing or hugging the animal. ^{2,7,8} | Consumption of food or water contaminated with animal feces. Exposure to animal bedding, flooring, barriers, bowls/dishes, other environmental surfaces, clothing and shoes that have been contaminated by the animal. ^{2,7,8} |

Several factors are important to consider when assessing the risk for zoonotic disease transmission from visiting and resident animals in child care centres. These include: characteristics of the population (*i.e.* number and ages of children enrolled in the centre, including any children that are immunocompromised); and higher risks of disease transmission related to certain animal species.

4.1 Populations at Risk

Children are more vulnerable than adults to acquiring infections from animals. This is due to several factors such as a general lack of awareness of the risk of disease transmission, less than optimal hygiene practices, propensity to put their fingers in their

mouths, increased risk of developing disease after exposure to a pathogen and their natural curiosity and attraction to animals. Young children and infants also have an increased risk of infection that can result in serious illness because their immune systems are not fully developed. In particular, infants and children under five years of age are at an especially high risk due to their developing immune systems, frequent hand-to-mouth activities (e.g. use of pacifiers, thumb-sucking) and other behaviours (e.g. crawling on the floor).^{4,8,9}

Staff, volunteers, or other adults in child care centres may also be at an increased risk of infections as they are in close, regular contact with young children. Many children attending child care centres are diapered or require assistance with toileting; therefore staff are often exposed to feces and potentially, fecally transmitted pathogens. Enteric illnesses acquired by children from animals may therefore be transmitted to caregivers, other children in the centre or other people the children are in contact with in the community. Infection may also occur directly from the animals to the staff. Pregnant women, people 65 years of age and over, and immune-compromised persons are considered high-risk adult groups as they may have reduced ability to fight off infection or may be more at risk for complications from these infections. Persons with cognitive disabilities are considered high-risk as they may exhibit behaviours that increase their risk of exposure to infectious agents.⁵ Of note, some facilities are organized with high-risk groups co-existing in shared or connected facilities, such as a building with a child care centre and a retirement home or Long-Term Care Home.

Box 5: Groups at High-Risk for Infection

- Children, particularly those under five years of age.
- Pregnant women.
- Persons 65 years of age and over.
- Immunocompromised individuals.
- Individuals with cognitive disabilities/intellectual delays.

4.2 Infections from Animal Contact

Visiting and resident animals may be a source of a number of zoonotic diseases from pathogens such as bacteria, viruses, parasites and fungi. A quick reference to some diseases can be found in Appendix 1: *Infectious Diseases from Visiting/Resident Animal Contact*, with a tool that may be useful in supporting risk assessments for infectious diseases and animals.

Gastrointestinal diseases are among the most common infections resulting from animal contact. These diseases are caused by infections of the gastrointestinal tract; bacteria and parasites that cause gastrointestinal disease pose the highest risk for zoonotic disease transmission in public settings.⁹

4.2.1 Gastrointestinal Infections

Gastrointestinal infections can be transmitted to humans from healthy, asymptomatic animals. Some of these pathogens have a low infectious dose, making infection from

limited exposure more likely. Although gastroenteritis may present acutely as diarrhea and/or vomiting, more serious illness can occur, especially in persons at high-risk of infection (see Box 5). Severe cases of gastroenteritis have been known to result in hospitalization and death.⁹

4.2.2 Salmonellosis in Reptiles/Amphibians

Salmonellosis, a disease caused by *Salmonella* bacteria, usually develops as a result of ingesting food contaminated with stools from an infected animal or person. Symptoms such as diarrhea, stomach cramps, fever, headache, nausea, and sometimes vomiting, usually develop 12 to 36 hours after infection. The severity of symptoms can vary depending on the amount of bacteria consumed, and the individual's age and general health. Salmonellosis disproportionately affects infants and young children^{10,11,12,13}

Animals are a known source of non-typhoidal *Salmonella* infection. Most reptiles and amphibians carry *Salmonella* as a normal part of their gut flora without ill effect on the animal itself. Reptiles and amphibians can shed these bacteria into their environments, which contaminate their bodies, enclosures, and areas where they roam. Direct contact with amphibians and reptiles does not have to occur for infants and children to become infected. Simply being in an environment where an amphibian or reptile is being housed or roams, or having contact with someone who has handled amphibians or reptiles and become contaminated by them could transmit infection to children. Additionally, exposure to *Salmonella* has been documented to be associated with contact with rodents (live or frozen) that are used as reptile food.

Outbreaks of salmonellosis involving exposure to turtles with shells less than four inches in length have been reported in many jurisdictions across the USA. As well, African dwarf frogs, bearded dragons, and geckos have been identified as sources of *Salmonella* outbreaks in Canada and the USA. Turtles with a shell length of less than four inches (which could easily fit into the mouths of young children) have been prohibited for sale in the United States since 1975, because of the public health impact of turtle-associated salmonellosis. There are no similar prohibitions in Canada.

5 Injuries from Animals

Animals can cause a range of physical injuries such as bites, bruises and scratches. The smaller stature of children and infants allows for animals to more easily cause injuries to their face and neck.^{14,15} Animal bites can cause puncture wounds, cuts, scrapes or crushing injuries. Due to the bacteria found in the mouths of animals, these wounds can develop serious infections if not treated promptly and appropriately. Bites to humans from any mammal (regardless of species, health or vaccination status) are immediately reportable to the local public health unit.¹⁶

6 Animals and Allergies

It is currently unclear whether there is an association between early exposure to dogs, cats and other furred pets and the development, or lack of development, of allergies in children.^{17,18,19,20} However, there is strong evidence to suggest that if a child has already developed an allergic sensitization to animal dander or protein, they are at an increased risk for developing allergic airway diseases like asthma and developing cross-reactive reactions to other furred animals when exposed to allergens from these animals.^{21,22} Accordingly, it is important for licensed child care operators to be aware that hosting various animals in their facility has the potential to introduce high numbers of allergens into the environment to the detriment of previously sensitized children, or potentially even to the detriment of children previously unexposed to animal allergens, particularly those from cats.^{18,19}

When children are introduced to animals, it is important to monitor them for the development of allergic symptoms such as wheezing, sneezing, and runny or blocked nose without evidence of a respiratory infection.¹⁹

7 Animals Not Recommended for Child Care Centres

Every animal has the potential to transmit zoonotic disease; however risks vary by species. Not all animals are specifically mentioned in this guidance document and public health staff should use their professional judgment to assess the public health risk of any resident or visiting animals in a child care centre. Local medical officers of health (MOH) should be consulted on these decisions. Refer to *Appendix 1, Table 1: Infectious Diseases from Visiting/Resident Animal Contact* for information that may assist with risk assessments. While it may not be possible to eliminate indirect contact with animals, measures can be taken to prevent or minimize the likelihood of exposure.

Some animals may present a higher risk of disease transmission because they naturally shed more harmful microorganisms, while other animals may be more prone to aggressive behavior or can cause other forms of injury. Interaction with these animals is not recommended for children and these animals should not be housed in or allowed to visit a child care centre. These animals are listed in Box 6 below:

Box 6: Animals Not Recommended for any Child Care Centres

- Stray animals with unknown health and vaccination history (e.g. stray dogs/cats) ^{4,9,23,24}
- Ill animals* or animals under medical treatment.⁹
- Young animals (e.g. puppies and kittens less than 1 year old).^{9,24}
- Animals that have been fed raw or dehydrated (but otherwise raw) foods, chews, or treats of animal origin within the past 90 days.^{25,26}
- Animals from shelters/pounds unless they have been in a stable home for at least 6 months ²⁷
- Birthing or pregnant animals.⁹
- Inherently dangerous animals (e.g. lynx, lions, bears, cougars, tigers, etc.) ⁹
- Predatory birds (e.g. hawks, eagles, owls, etc.).^{9,28}
- Venomous or toxin-producing animals (e.g. venomous or toxin-producing spiders, insects, reptiles and amphibians).^{5,24,28}
- Aggressive animals (e.g. animals that have demonstrated aggressive behavior in the past) ^{4,9,24,25}
- Animals in estrus (i.e. animals in heat).^{24,29}
- Exotic animals (e.g. hedgehogs, chinchillas, etc.) and non-human primates** (e.g. monkeys, lemurs, etc.).^{4,7,24,25,30,31}
- Wild animals (e.g. squirrels, chipmunks). ^{4,7,24,25,29}
- Rabies reservoir species (i.e. bats, skunks, raccoons, foxes).

* Some animals may have no signs of illness and still shed pathogens; it is important to be vigilant with infection prevention and control practices with all animals.

** Exotic animals should not visit facilities with children under five years of age or groups at high risk for infection or child care centres that have shared staff or shared programming areas with children under five years of age or other groups at high-risk for infection. If animal exhibits are visiting older children, consideration should be given to the risks associated with the species that will be involved and infection prevention and control measures that can be implemented to minimize risk. See section 10 *Additional Guidelines for Visiting Animals* for additional considerations.

8 Animals Not Recommended for Children Under Five Years of Age

Infants and children under the age of five years are at an especially high risk for serious infection when in contact with certain animals. Consequently, these animals (in addition to those listed in Box 6 above) should also not visit facilities with children under five years of age and should not reside in or visit facilities that share staff or programming areas with infants and children under the age of five years. These animals are listed in Box 7 below.

Box 7: Animals Not Recommended for Facilities with Children <5 years of age

- Exotic animals and non-human primates.^{4,7,24,25,32,33}
- Reptiles (e.g. turtles, snakes and lizards such as bearded dragons and geckos).^{9,10,11,13,14,34}
- Amphibians (e.g. frogs, toads, salamanders).^{9,14,30}

Box 7: Animals Not Recommended for Facilities with Children <5 years of age

- Live poultry, (e.g. chicks, ducklings, goslings), including hatchery equipment.^{9,14,30}
- Ferrets.^{9,27}
- Farm animals (e.g. calves, goats, sheep).^{9,14}

It is important to remember that these animals could also transmit infectious diseases to children who are five years of age and over; thus, appropriate infection prevention and control measures should always be practiced when interacting with these animals.

9 Infection Prevention and Control Recommendations (IPAC)

The following IPAC recommendations apply to all activities involving animals in child care centres, whether these involve a visiting animal or a resident animal housed in the facility.

9.1 Prior to Animal Contact

9.1.1 Preparation of Infection Prevention and Control Policies and Procedures

If animals will be a regular part of the child care centre's activities, there should be written infection prevention and control policies and procedures that staff are knowledgeable about. These policies and procedures should include information covered in this guidance document, adapted to be setting-specific. As per the *Infection Prevention and Control in Child Care Centres, 2016* (or as current), these policies and procedures should be developed in consultation with the local public health unit; they should be reviewed regularly (*i.e.* annually or sooner if the information has been updated) and revised as needed to ensure that they are current.

9.1.2 Consultation with Parents/Guardians

Parents/ guardians of children should be consulted prior to introducing any animals into the child care centre.^{23,33} Parents/guardians should be informed of both the benefits of engaging and interacting with animals, as well as the risks (e.g. infectious disease transmission and injury) and how the child care centre plans to mitigate those risks.

When consulting with parents/guardians, it is important to determine whether there are circumstances (e.g. children with allergies or asthma or phobias) that would require avoiding contact with certain animals or special considerations that are required for particular children with specific health or developmental concerns (*i.e.* children with special needs). If the child care centre already has a resident animal, parents/guardians should be informed of this prior to enrollment.

9.1.3 Animal Health Documentation

It is important that animals visiting or housed at the child care centre are healthy and clean.^{3,24,25,28} A health management plan must be in place for all visiting and resident animals. For resident animals this should include regular (at least yearly) examination by a licensed veterinarian and a preventative care program that ensures appropriate nutrition, dental care, vaccinations and parasite management/prevention for each animal. See Appendix 2.A for the *Veterinary Care Statement for Resident Animals in Child Care Centres* form, which should be used to document animal health information. Fish and invertebrate species do not require completion of the *Veterinary Care Statement for Resident Animals in Child Care Centres* form. The child care centre should have contact information for a veterinarian who is able to provide care in response to health concerns.

For visiting animals, health management will depend on the species type, but should include both regular veterinary examinations and veterinary examinations in response to health concerns. Child care centre operators are strongly encouraged to ask for proof of animal health documentation from visiting animals. See Appendix 2.B for the *Veterinary Care Statement for Animals Visiting Child Care Centres* form for a template that may be provided to the owner of visiting animals prior to the scheduled activity. In addition, dog and cats either kept on the premises or visiting a child care centre must have proof of up-to-date rabies vaccination in the form of a current rabies vaccination certificate issued by an Ontario veterinarian, in accordance with O. Reg. 567 under the HPPA. It is recommended that any ferrets also have proof of up-to-date rabies vaccination.

9.1.4 Education of Staff, Volunteers, Students, and Children

It is recommended that child care staffs, students and volunteers regularly present at the child care centre be educated on IPAC measures related to animal contact before animals are introduced to the child care centre.^{9,35} In particular, adults regularly present around children in centres should be trained on how to monitor and engage with children during interactions with animals (see Box 8 below). Children should be separated from all animals during noisy high-energy play, when food is present, and when the animal or child is sleeping. It is important that children are also taught the skills/behaviours required to behave safely around animals, and to prevent and recognize any problems that may arise while interacting with the animal(s). Prior to any activities involving animals, children should be educated on safe interactions with animals and IPAC practices related to animal contact.

Box 8: Educate Children to Interact with Animals Appropriately

- Always treat animals gently and calmly. Never hurt, tease, frighten, surprise or corner an animal.
- Avoid chasing and kissing animals.
- Never disturb an animal that is eating or sleeping.
- Always perform hand hygiene (wash hands or used alcohol-based hand-rub) after touching animals, their food bowls, toys, bedding, etc.
- Avoid touching animal food and feces.
- Avoid touching their faces after animal contact until hand hygiene is performed.

It is recommended that the child care centre operator have a written animal bite/scratch protocol that is aligned with requirements set out in Ontario Regulation 137/15 around daily written records, serious occurrences, childhood illness and accidents, first aid practices and reporting (e.g. to public health, child's parents/guardians), and Ontario Regulation 557 for animal bite reporting.

Box 9: Important Actions Prior to Animal Contact with Children

- Written infection prevention and control policies and procedures, reviewed by the local public health unit.
- Informed consent from parents/guardians for animal activities.
- Animal health documentation (see forms in Appendix 2.A and .B) for resident and/or visiting animals.
- Education of staff, centre volunteers/students, and children on appropriate infection prevention and control measures and behaviours for animal contact.

9.2 During Activities with Animals

9.2.1 Supervised Activity

Operators of child care centres, supervisors, and/or staff should always monitor any child-animal interactions, paying particular attention to activities involving young children less than five years of age. Visiting animals should be displayed in enclosed cages or under appropriate controlled circumstances (e.g. on leash).^{9,14,21,23,24,28} Resident and visiting animals should not be allowed to roam, fly free, or have contact with wild animals.^{3,14,23,27} Animals should be prohibited from access to non-potable water, such as surface water or toilet bowls.³³ Direct animal contact should be limited to touching and petting with hands. Animals licking, kissing or crawling onto children should be prevented. Bites and scratches inflicted by animals should be promptly washed. Bites from any mammals (regardless of species, health or vaccination status) to humans are immediately reportable to the local public health unit, as per O. Reg. 557. Parents/guardians should be informed of any bites or scratches that have occurred.

9.2.2 Hand Hygiene

Hand hygiene is a general term referring to any act of hand cleaning. It is an important prevention measure to stop the spread of infectious diseases as hands can carry and

spread pathogens.³⁶ In a child care centre, supervised and frequent hand hygiene is especially important as young children frequently exhibit hand-to-mouth behaviours and have little awareness of hygiene practices. Both hand washing and alcohol-based hand rubs (ABHR) are effective methods to perform hand hygiene.³³

Hand Washing

All reasonable efforts should be made to ensure that activities are within close proximity to a sink equipped with hand washing supplies (including liquid soap, paper towels and hot/cold running water). Children should always be monitored by an adult while washing their hands.¹⁴

Staff, volunteers/students, and children should perform hand hygiene immediately after handling an animal, its food or water, environment (e.g. bedding) and equipment (e.g. leashes, cages). As per usual practice, hand hygiene should also occur before preparing and consuming food.

Box 10: Hand Washing Step-by-Step Procedure

1. Hands must be wet with clean, running water.
2. Apply liquid soap to hands.
3. Lather hands with soap for at least 15 seconds (or sing 'Happy Birthday' twice) with attention to rubbing between fingers, back of hands, fingertips and under nails.
4. Rinse soap with running water.
5. Dry hands well with paper towel or an air dryer.
6. Turn taps off with paper towel, if available.

Alcohol-based Hand Rubs (ABHR)

Alcohol based hand rubs (ABHR) may be used to clean hands when they are not visibly soiled and there is no access to a sink or running water. It may be a more convenient option during activities where children are involved in handling animals.³³ As non-enveloped viruses such as norovirus or rotavirus are a concern in child care centres, it is advised that ABHR that are used contain 70-90% alcohol. Recent studies have shown that using ABHR does not raise serum blood alcohol levels in adults or children.³³ However, supervision of children is required to monitor effective use of ABHR and to avoid potential ingestion or inadvertent contact of ABHR with eyes and mucous membranes. ABHR should be stored safely so that a child cannot accidentally ingest it.

Box 11: Steps to Use ABHR with Children

ABHR should only be used if hands are not visibly soiled.

1. Squirt 1 pump into the palm of one of the child's hands.
2. Instruct the child to:
 - a. Rub the fingertips of his/her free hand into the product in his/her palm.
 - b. Switch the product to the palm of his/her other hand and repeat.
 - c. Rub each thumb clasped in his/her opposite hand.
 - d. Rub the product over wrists, between fingers and over backs of his/her hands.
 - e. Rub until his/her hands are dry—at least 15 seconds.
3. Do not use paper towels.
4. Once dry, the child's hands are safe and clean.

Box 11: Steps to Use ABHR with Children

If a child is unable to clean his/her own hands, dispense the rub into your palms, and then rub the surfaces of child's hand between yours until dry.

9.2.3 Food Safety

Specific areas should be designated for activities involving animals. Food and drinks should not be allowed in these designated areas during activities involving interaction with animals and should only be allowed in these areas once the animal has left and the area has been appropriately cleaned and disinfected.^{23,33} Animals should not be allowed into areas where food is being stored, prepared, served or consumed. Animal enclosures, as well as food and water bowls, should not be cleaned in food preparation, consumption or storage areas.

9.2.4 Animal Food and Treats

Handling contaminated animal food and treats has been associated with human enteric illnesses. Human illnesses caused by *Salmonella* bacteria acquired from dry dog food have been identified in both the United States and Canada. A multistate outbreak of *Salmonella* may have been the result of direct contact with the contaminated animal food or may have occurred indirectly through contact with the animal and their associated environment.³⁷ It is important to perform hand hygiene after handling any animal food and/or treats.

Raw pet food diets are growing in popularity. Literature has shown that compared to other types of pet foods tested, raw pet food was more likely to be contaminated with pathogens including *Salmonella* and *Listeria monocytogenes*. This type of diet should not be used for resident animals in child care centres. In addition, it is recommended that any animal that has been fed raw or dehydrated (but otherwise raw) foods, chews, or treats of animal origin within the past 90 days be excluded from child care centres.^{25,26}

Box 12: Management of Animal Food and Treats

- For resident animals, food and treats should be stored off the floor, in a latched cupboard and kept away from where human food is stored, prepared, served or consumed.
- Animal food and treats should always be inaccessible to children.
- Children should not feed animals directly from their hands.^{24,25,29}
- Do not use human food items (e.g. ice cream cones) to feed animals.
- Raw pet food should not be served to resident animals and visiting animals should not have received raw pet food in the preceding 90 days before a visit to a child care centre.
- Animal food and treats may contain allergens (e.g. peanuts). Operators of child care centres should follow their anaphylactic policy (per Ontario Regulation 137/15 made under the CCEYA) that includes a strategy to reduce the risk of exposure to anaphylaxis-causing agents potentially present in animal food and treats.
- Hand hygiene should be performed after handling animal food and treats.

9.2.5 Clean-Up of Blood or Body Fluids

Blood and/or other substances such as urine, feces and vomit from animals or humans must be contained, cleaned and disinfected immediately. A step-by-step process is outlined in Box 13.

Box 13: Procedure for Blood or Body Fluid Clean-Up

1. Restrict activity around the area of the blood or body fluid until it has been cleaned, disinfected and is completely dry. The area should be inspected for splatters or splashes.
2. Child care staff must be provided with and use protective equipment for cleaning up blood or body fluid which includes single-use disposable gloves. If there is broken glass or sharp objects, heavy duty rubber gloves should be used. Care should be taken to avoid getting the blood or body fluid onto exposed skin, or into the eyes, mouth or nose.
3. Disposable paper towels should be used to wipe up the blood or body fluid; used paper towels should be disposed of in a plastic bag or regular, plastic lined waste receptacle with a tight-fitting lid.
4. The affected area should be cleaned with detergent and water and allowed to air dry prior to disinfection.
5. Disinfect the area using an appropriate product, specifically intended for disinfection of surfaces contaminated with blood and body fluid, allowing for sufficient contact time with the surface. Ensure that manufacturer's instructions are followed.⁶
6. Take precautions to avoid skin/eye contact or inhalation of the disinfectant and always use it according to manufacturer's instructions.
7. Supplies such as rags or mop heads should be discarded in the plastic bag or plastic-lined waste receptacle if disposable, or appropriately laundered if re-usable.
8. Disposable gloves should be removed and discarded in the plastic bag or plastic-lined receptacle and hand hygiene performed.

9.3 After Activities with Animals

Perform hand hygiene immediately after any activity involving animal contact and check if any children's clothing has been visibly contaminated.

9.3.1 Cleaning and Disinfection

All environmental surfaces in areas where animals have been present should be cleaned first and then disinfected.^{9,14,33} Disinfectants only work on clean surfaces, rapidly killing or inactivating most infectious agents, and must not be used as general cleaning agents.

Box 14: Choosing and Using Disinfectants

- All disinfectants, except for bleach, must have an 8 digit Drug Identification Number (DIN) from Health Canada.
- Products with a DIN must be used according to manufacturer's instructions with particular attention to contact time.
- ABHR must never be used to disinfect an environmental surface.
- For more information on how a bleach solution can be prepared as a disinfectant, please see Public Health Ontario's Chlorine Dilution Calculator:
<http://www.publichealthontario.ca/en/ServicesAndTools/Tools/Pages/Dilution-Calculator.aspx#.VUjeHpRZyM8>.
- Disinfectants should be used according to the manufacturer's instructions for dilution and required duration of contact time for efficacy.
- It is recommended that any disinfectant found within the Workplace Hazardous Materials Information System (WHMIS) have a Material Safety Data Sheet (MSDS) that is available to all staff.
- Children should not be permitted to perform or assist with cleaning and disinfection.

9.3.2 Monitoring for Infections

A person may not develop symptoms of a zoonotic disease until some period of time after animal contact has occurred. As part of the daily health/well-being observation of each child, child care centre staff should be looking for changes in a child's behaviour or appearance along with specific signs and symptoms of infection (e.g. diarrhea, vomiting, fever, rash). Staff should record any illness observed. As per Ontario Regulation 137/15, staff should separate ill children from well children and send children home if they are not well enough to remain at the child care centre or if they are suspected to have a communicable disease. Monitoring children and staff members for illness, including those who are away due to illness, will allow child care centre staff to notice unusual increases in the number of children, staff, and/or volunteers/students exhibiting similar symptoms. Child care centre operators or their designates (i.e. supervisors) should contact their public health unit to discuss such increases and determine whether an outbreak is occurring. Staff should inform their public health unit if sick children have had recent contact with animals.

Parents/guardians of children enrolled in the child care centre should be educated on the importance of communicating to the child care centre's supervisor and/or staff when their child is ill.

10 Additional Guidelines on Visiting Animals

Travelling animal exhibits can be quite diverse in nature, ranging from being managed by local amateur enthusiasts to large commercial businesses. Animals exhibited range from common domestic animals to exotic species. Child care centre operators and staff

should exercise extreme caution when inviting animal exhibits into their centre, as licensing and regulation of such exhibits is extremely limited. Some municipalities may have by-laws restricting exotic animal ownership. Child care centre operators should be aware of any by-laws restricting certain animals in their municipalities.

10.1 Health and Well-Being of Animals

Child care centre operators should take reasonable care that all visiting animals appear to be healthy and well-cared for. The completion of a *Veterinary Care Statement for Animals Visiting Child Care Centres* (Appendix 2.B) by the animal owner is important documentation to have prior to the visit. It is also important to be aware of some of the organizations outlined below as they are involved in safeguarding the health and well-being of animals.

The Ontario Society for the Prevention of Cruelty to Animals (OSPCA) is an independent charitable organization which is authorized by the OSPCA Act to enforce any law in Ontario pertaining to the welfare and protection of animals, including the OSPCA Act itself. The OSPCA Act is Ontario's primary animal protection law. Under the OSPCA Act, anyone who owns or has custody of an animal must comply with standards of care under the Act. Those standards set out the basic requirements to ensure the welfare of any animal. This includes, but is not limited to, the provision of adequate and appropriate medical attention to every animal. For more details, please refer to the OSPCA Act and Ontario Regulation 60/09. OSPCA investigators are authorized by the OSPCA Act to enforce any law in Ontario pertaining to the welfare and protection of animals, including the OSPCA Act itself.

Premises where animals are kept for entertainment, exhibit, boarding, hire or sale are subject to inspection without a warrant by the OSPCA to check for compliance with those standards of care. While the OSPCA Act focuses on animal protection, compliance with the standards of care under the OSPCA Act is closely tied to maintaining conditions that can minimize the spread of infectious diseases and protect human health and safety.

Box 15: Reporting Suspected Animal Abuse

To report suspected animal abuse, call the OSPCA at 310-7722, email cruelty@ospca.on.ca, or contact Crime Stoppers at 1-800-222-8477 or police.

Child care centre operators may also want to check if travelling animal exhibits are a member of the *Canada's Accredited Zoos and Aquariums* (CAZA) voluntary accreditation program. This accreditation certifies that a business is currently meeting the professional standards set by CAZA, and is based upon the informed collective judgment of experienced individuals within the profession. CAZA accredited businesses must have an animal health care program under the direction of a licensed veterinarian that emphasizes disease prevention. An accredited business may be reviewed or inspected by CAZA at any time within its five-year accreditation period.

CAZA accredited businesses will have a letter stating their accreditation status. This can be verified by contacting CAZA <http://www.caza.ca/>.

10.2 Record-Keeping

It is strongly recommended that child care centre operators keep records of any visiting animals. These records contain important pieces of information, which ensure that operators can track who has been in the facility and can be useful in instances where visitors need to be contacted. Records should include the information outlined in Box 16.

Box 16: Information for Record-Keeping of Visiting Animals

- Date of the visit.
- Name of the animal(s) owner.
- Owner contact information.
- Animal(s) name and species.
- Proof of animal health documentation (see Appendix 2.B *Veterinary Care Statement for Animals Visiting Child Care Centres*).
- Description of the group of children/room(s) visited.
- Any additional guests in attendance.

It is recommended that these records are kept on-site for one year and made available to public health unit staff or parents/guardians who may request to see them.

11 Additional Guidelines on Resident Animals

Child care centre operators may choose to house a resident animal in their centre. Operators are encouraged to seriously consider the risks and benefits to children of housing an animal in their centre. Issues such as allergies, transmission of infections, safety and the welfare of resident animals must be considered when making a decision to have a resident animal. Housing resident animals is a long-term commitment, including weekends and holidays when the child care centre may not be open. It is not recommended that children take animals home on weekends and holidays as parental supervision cannot be ensured and the home environment (including other family pets) may pose issues. Where an animal's mental and physical well-being cannot be adequately ensured, it is not recommended to keep animals at the centre. Child care centres should develop a resident animal care plan (see Box 17) that includes annual documentation of animal health (see Appendix 2.A *Veterinary Care Statement for Resident Animals in Child Care Centres*).

All animals should be regularly groomed and checked for signs of injury or infection. Child care centre operators and staff should seek veterinary care at the first sign of illness in an animal. Animal enclosures should be located away from the children's eating and sleeping areas, and animals must have free access to a quiet enclosure away from children at all times.

Box 17: Components of a Resident Animal Care Plan

- Named staff members, including primary care providers and a back-up who will take responsibility for the resident animal, including at times when the child care centre is closed.
- The animal's daily requirements, including feeding and exercise.
- Daily health screening of the animal for signs of infection/injury.
- Animal bathing and cleaning requirements.
- Cage/tank cleaning/disinfection schedule and procedure.
- Contact number for the resident animal's veterinarian.
- Annual completion of *Veterinary Care Statement for Resident Animals in Child Care Centres* (see Appendix 2.A).

11.1 Cleaning and Disinfection of Enclosures

Child care centres should include the cleaning of resident animal enclosures as part of their routine cleaning and disinfection schedule; however, dedicated equipment is required for cleaning the animal enclosures. Staff/volunteers/students or others who are pregnant and children should not be involved in the cleaning of animal enclosures or litter boxes. Animal cages, tanks, accessories (e.g. toys) or equipment (e.g. food and water dishes) must not be cleaned in sinks or other areas used to store, prepare, serve or consume human food and drinks (including where drinking water is obtained) or where cleaning/sanitizing of utensils or dishes for humans occurs. Aquarium water should not be disposed of in sinks used for food preparation or hand-washing.³³ Sinks designated for cleaning equipment, such as utility sinks, may be used. Equipment, such as brushes, containers or cloths, used for cleaning and disinfecting enclosures should be designated for this purpose and not used to clean any other area of the child care centre.

The frequency of thorough routine cleaning and disinfection is dependent on the resident animal and its items and requires the animal to be temporarily relocated while the enclosure and items are cleaned and disinfected. In addition to routine cleaning and disinfection, cleaning procedures should also address the immediate removal of any spills, uneaten leftover food and urine or feces, and this should occur more frequently than the routine cleaning and disinfection. Litter boxes should be changed daily and kept away from children and pregnant staff, volunteers, and students. When cleaning and disinfecting bird enclosures, it is recommended to spray the area with water at the start of the cleaning process to prevent the inhalation of dust from dried feces which can contain bacteria.

Box 18: Cleaning and Disinfection of Animal Enclosures

1. Assemble all required cleaning and disinfecting supplies.
2. Put on gloves and protective outer garments (*i.e.* apron).
3. Remove animal to a temporary holding area.
4. Dispose of food, droppings, bedding material, *etc.* in a garbage bag.
5. Clean animal enclosures, food containers, toys, *etc.* with soap and water, using a scrub brush to remove dirt. Rinse thoroughly with fresh water. Sinks used for food preparation and sinks used by

Box 18: Cleaning and Disinfection of Animal Enclosures

- children should not be used for cleaning animal enclosures and related items.
6. Disinfect items with appropriate product, follow manufacturer's instructions.
 7. Rinse items thoroughly, if needed to remove chemical residue, and dry.
 8. Use fresh bedding material, food, water etc. when preparing the enclosure and before returning the animal to its enclosure.
 9. Clean and disinfect area(s) surrounding the enclosure and the animal's temporary holding area.
 10. Cleaning sinks must also be cleaned and disinfected after use.
 11. Discard single-use gloves or clean and disinfect reusable rubber gloves.
 12. Perform hand hygiene.

Adapted and reproduced with permission from the Durham Region Health Department

12 References

1. Louv R. (2008). *Last child in the woods: Saving our children from nature deficit disorder*. Chapel Hill, NC: Algonquin Books.
2. Centers for Disease Control and Prevention. (2011). [Compendium of Measures to Prevent Disease Associated with Animals in Public Settings, 2011](#).
3. Health Protection Surveillance Centre. (n.d.). [Preschool and Childcare Facility Subcommittee: Management of Infectious Disease in Childcare Facilities and Other Childcare Settings](#).
4. National Association of State Public Health Veterinarians, Inc. (2006). [Compendium of Measures to Prevent Disease Associated with Animals in Public Settings, 2006](#).
5. Whitfield Y, Smith, A. (2012). Household Pets and Zoonoses. <http://www.ncceh.ca/documents/evidence-review/household-pets-and-zoonoses-university-guelph-master-public-health-program>
6. Ontario Agency for Health Protection and Promotion, Provincial Infectious Diseases Advisory Committee. Best Practices for Environmental Cleaning for Prevention and Control of Infections in All Health Care Settings. 2nd Revision. Toronto, ON: Queen's Printer for Ontario; 2012.
7. Health Protection Surveillance Centre. (n.d.). [Preschool and Childcare Facility Subcommittee: Management of Infectious Disease in Childcare Facilities and Other Childcare Settings](#)
8. Government of Queensland. (2014). [Animal Contact Guidelines – Reducing the Risk to Human Health 2014 \(Interim\)](#).
9. National Association of State Public Health Veterinarians Animal Contact Compendium Committee. (2013). [Compendium of Measures to Prevent Disease Associated with Animals in Public Settings, 2013](#).

10. Pees M, Rabsch W, Plenz B, Fruth A, Prager R, Simon S, Schmidt V, Münch S, Braun PG. Evidence for the transmission of *Salmonella* from reptiles to children in Germany, July 2010 to October 2011. *Euro Surveill*. 2013;18(46):pii=20634.
11. Mettee Zarecki SL, Bennett SD, Hall J, Yaeger J, Lujan, K, Adams-Cameron M, Quinn KW, Brenden R, Biggerstaff G, Hill VR, Sholtes K, Garrett NM, Lafon PC, Barton Behravesh C, Sodha SV. 2008-2011 US Outbreak of Human *Salmonella* Infections Associated with Aquatic Frogs. *Pediatrics*; 2013;131(4): 724-31.
12. Hale CR, Scallan E, Cronquist AB, Dunn J, Smith K, Robinson T, Lathrop S, Tobin-D'Angelo M, Clogher P. Estimates of Enteric Illness Attributable to Contact with Animals and their Environments in the United States. *Clin Infect Diseases* 2012;54(S5):S472–9
13. Whitten T, Bender JB, Smith K, Leano F, Scheffel J. Reptile-associated salmonellosis in Minnesota, 1996-2011. *Zoonoses Public Health*. 2015 May;62(3):199-208.
14. Centers for Disease Control and Prevention. (2014). [Animals in Schools and Daycare Settings](#).
15. HealthLinkBC. (2012). [Animal and Human Bites](#).
16. Ontario. Ministry of Health and Long-Term Care. Guidance Document for the Management of Suspected Rabies Exposures, 2013. Toronto, ON: Queen's Printer for Ontario;2013
http://www.health.gov.on.ca/en/pro/programs/publichealth/oph_standards/guidance.aspx
17. Pet Allergies References: Litonjua AA, Milton DK, Celedon JC, Ryan L, Weiss ST, and Gold DR. A longitudinal analysis of wheezing in young children: The independent effects of early life exposure to house dust endotoxin, allergens, and pets. *J Allergy Clin Immunol* 2002;110:736–42.
18. Holscher B, Frye C, Wichmann HE, and Heinrich J (2002). Exposure to pets and allergies in children. *Pediatr Allergy Immunol* 2002;13:334–341.
19. Lødrup Carlsen KC, Roll S, Carlsen K-H, Mowinckel P, Wijga AH, et al. (2012) Does Pet Ownership in Infancy Lead to Asthma or Allergy at School Age? Pooled Analysis of Individual Participant Data from 11 European Birth Cohorts. *PLoS ONE* 7(8): e43214. doi:10.1371/journal.pone.0043214
20. Dharmage SC, Lodge CL, Matheson MC, Campbell B, Lowe AJ. Exposure to cats: update on risks for sensitization and allergic diseases. *Curr Allergy Asthma Rep* 2012;12:413-23.
21. Apelberg BJ, Aoki Y, Jaakkola JJ. Systematic review: exposure to pets and risk of asthma and asthma-like symptoms. *J Allergy Clin Immunol* 2001;107:455-60

22. Konradsen JR, Fujisawa T, van Hage M, Hedlin G, Hilger C, Kleine-Tebbe J, Matsui EC, Roberts G, Ronmark E, and Platts-Mills T. Allergy to furry animals: New insights. *J Allergy Clin Immunol* 2015 Mar. 135(3): 616-25.
23. National Resource Center for Health and Safety in Child Care and Early Education. (2011). [Caring for Our Children: National Health and Safety Performance Standards; Guidelines for Early Care and Education Programs, Third Edition. Chapter 3: Health Promotion and Protection](#)
24. State of North Carolina. (2008). [Guidelines for Animals in North Carolina Schools.](#)
25. Finley R, Reid-Smith R, Weese JS. Human health implications of Salmonella contaminated natural pet treat and raw pet food. *Clin Infect Dis.* 2006;42(5):686-91.
26. Lefebvre SL, Golab GC, Christensen E, Catrodale L, Aureden K, Bialachowski A, et al. Guidelines for animal-assisted interventions in health care facilities. *Am J Infect Control.* 2008 Mar;36(2)78-85.
27. Rekha Murthy, Gonzalo Bearman, Sherrill Brown, Kristina Bryant, Raymond Chinn, Angela Hewlett, B. Glenn George, Ellie J.C. Goldstein, Galit Holzmann-Pazgal, Mark E. Rupp, Timothy Wiemken, J. Scott Weese and David J. Weber Animals in Healthcare Facilities: Recommendations to Minimize Potential Risks. *Infection Control & Hospital Epidemiology*, Available on CJO 2015 doi:10.1017/ice.2015.15
28. State of Alaska. (n.d.). [Animals in Schools Guidelines for Resident and Visiting Animals.](#)
29. State of Kansas. (n.d.). [Animals in Kansas Schools: Guidelines for Visiting and Resident Pets](#)
30. Government of Australia, National Health and Medical Research Council. (2005). [Staying Healthy in Child Care: Preventing Infectious Diseases in Child Care, 4th Edition](#)
31. Stull JW, Brophy, J, Weese, JS. Reducing the risk of pet-associated zoonotic infections. *Can Med Assoc Journal.* 2015 July 187(10) 736-743
32. Government of Australia, National Health and Medical Research Council. (2005). [Staying Healthy in Child Care: Preventing Infectious Diseases in Child Care, 4th Edition](#)
33. Stull JW, Brophy, J, Weese, JS. Reducing the risk of pet-associated zoonotic infections. *Can Med Assoc Journal.* 2015 July 187(10) 736-743
34. Ontario. Ministry of Health and Long-Term Care. Recommendations to Prevent Disease and Injury Associated with Petting Zoos in Ontario. Toronto, ON: Queen's Printer for Ontario;2011. http://www.health.gov.on.ca/en/pro/programs/publichealth/oph_standards/oph_protocols.aspx

35. Pickering, L, Marano, N, Bocchini, J, & Angulo, F. (2008). [Exposure to Nontraditional Pets at Home and to Animals in Public Settings: Risks to Children.](#) Pediatrics. 122(4): 876-886.
36. Ontario Agency for Health Protection and Promotion (Public Health Ontario), Provincial Infectious Diseases Advisory Committee. Best Practices for Hand Hygiene in All Health Care Settings. 4th ed. Toronto, ON: Queen's Printer for Ontario; April 2014.
37. Imanishi M, Rotstein DS, Reimschuessel R, Schwensohn CA, Wood DH et al. Outbreak of Salmonella enterica serotype Infantis infection in humans linked to dry dog food in the United States and Canada, 2012. Am Vet Med Assoc. 2014 Mar 1;244(5):545-53.

Appendix 1 Infectious Diseases from Visiting/Resident Animal Contact

Table 1: Risk Assessment Support Tool Summarizing Select Infectious Diseases from Animal Contact

| Infectious Disease <i>* reportable to Public Health</i> | Prevalence in animals (✓ rare to ✓✓✓ common) | Route of Transmission and Risk to Children | Potential Serious Outcomes in Children | Specific Prevention Measures |
|--|--|--|---|---|
| Bartonellosis “Cat scratch disease” | Dogs ✓ Cats ✓✓ Likely underdiagnosed. | Scratches, bites or licks from infected animals. Transmission of disease between as occurs via flea bites, but this has not been proven as a route of transmission to humans. The risk of transmission to humans is moderate. | Many people have immunity; the risk of serious disease is low, but there can be serious outcomes (e.g. bacteremia, endocarditis, neuroretinitis and proliferative lesions) in high risk groups. | Flea control is an important preventive measure. Keep cats indoors. Monitor children in contact with animals and educate them about appropriate interactions with animals to reduce the risk of bites and scratches. |
| Campylobacteriosis* | Dogs ✓ Cats ✓ Puppies/Kittens ✓✓✓ Birds ✓ Rabbits ✓ Ferrets ✓ Other caged mammals* ✓ Poultry/Chicks ✓✓✓ More common in young animals or those with diarrhea. | Fecal-oral Transmission to children from adult dogs or cats is unlikely but is higher in puppies and kittens. | Most often disease is self-limiting. Very rarely infection can have serious complications or be fatal. | Do not feed raw or undercooked meat to animals. Do not allow animals to drink unsafe water sources. Isolate resident animals with diarrhea and do not allow visiting animals with diarrhea. Hand hygiene after handling animals. |
| Cryptosporidiosis* | Dogs ✓ Cats ✓ Farm animals (particularly calves) ✓✓✓ Rodents ✓ | Fecal-oral. Transmission from dogs and cats is possible but very uncommon based on prevalence and subtypes found in these species. Cattle are the most important animal reservoir for <i>Cryptosporidium</i> . Neonatal calves are infected during the first days of life. | Most often disease is self-limiting. Prolonged life-threatening cholera-like diarrhea has been reported in immunocompromised patients. | Do not allow animals to drink unsafe water sources. Isolate resident animals with diarrhea and do not allow visiting animals with diarrhea. Hand hygiene after handling animals. |
| “Hookworms” | Dogs ✓✓ Cats ✓✓ Puppies/Kittens ✓✓✓ | Ingestion of infective larvae or direct penetration of the skin by larvae. Larvae develop in infected feces and can | Hookworm larvae penetrate through the skin and cause inflammation, with severe itchiness and raised red lines on | Parasite control regimen for pet animals. Prompt removal of animal |

| Infectious Disease <i>* reportable to Public Health</i> | Prevalence in animals (✓ rare to ✓✓✓ common) | Route of Transmission and Risk to Children | Potential Serious Outcomes in Children | Specific Prevention Measures |
|--|--|---|--|---|
| | Rodents ✓ More common in young animals | penetrate human skin upon contact, such as walking barefoot or sitting on contaminated soil/sand. Risk is posed from environmental exposure to areas contaminated with old feces. Uncovered sandboxes are the main concern. | the skin. Disease is most often self-limiting. | feces. Avoid areas that may have been contaminated by feces. Cover sandboxes when not in use to prevent animals from defecating in them. Wear shoes when walking outdoors. |
| Dermatophytosis “Ringworm” | Dogs ✓✓ Cats ✓✓✓ Birds ✓ Rabbits ✓ Other caged mammals* ✓ More common when animals are housed closely together. Young animals are more likely to carry. | Skin-to-skin contact with lesions of animals or indirect contact with contaminated materials. Risk of infection is moderate. | Cutaneous infection with characteristic, circular red lesions, which may require treatment with prescription antifungal medications. | Avoid housing animals in crowded conditions. Keep enclosures clean. Identify and treat infected animals early and clean/disinfect environment. Clean grooming supplies regularly. |
| Giardiasis* | Dogs ✓✓ Cats ✓ Chinchillas ✓✓✓ Other caged mammals* ✓ | Fecal-oral Most Giardia strains found in dogs and cats are not transmissible to people. | Most often, disease is self-limiting. Chronic infections can lead to malabsorption, weight loss and impaired pancreatic function. | Do not allow animals to drink from unsafe water sources. Prompt removal of animal feces. Hand hygiene after handling animals. |
| Human Lymphocytic Choriomeningitis Virus (LCMV) infection | Rodents ✓ Most commonly from infected wild rodents but has been reported in pet rodents (mice and hamsters) | Direct contact with infected feces, urine or saliva and indirect contact with contaminated materials | Most often disease is mild and self-limiting, but severe neurological illness can develop in some individuals. | Prevent contact between pet rodents and wild rodents. Wild rodent control. Bite avoidance and bite first aid. |
| Leptospirosis | Dogs ✓✓ Farm animals ✓ Rats ✓✓✓ Other caged mammals* ✓ More common in outdoor dogs exposed to urine from wild animals or animals housed in crowded conditions. | Direct contact with urine and indirect contact with contaminated materials. The incidence in humans is low but the incidence in dogs has increased in recent years. The risk of transmission is moderate. | Most often disease is mild and self-limiting. Rarely infection can have serious complications or be fatal. | Vaccine available for dogs. Limit possible exposure to urine from wild animals. Do not allow animals to drink from unsafe water sources. Avoid housing animals in crowded conditions. Wild rodent control. Prevent build up of stagnant water. Take care cleaning rodent enclosures. |

| Infectious Disease <i>* reportable to Public Health</i> | Prevalence in animals (✓ rare to ✓✓✓ common) | Route of Transmission and Risk to Children | Potential Serious Outcomes in Children | Specific Prevention Measures |
|---|--|---|---|--|
| Psittacosis* | Psittacine Birds ✓✓✓ (e.g. parrots, parakeets, macaws, cockatiels etc.) Poultry ✓✓ (e.g. turkeys and ducks) Other bird species ✓ | Inhalation or fecal-oral Disease in humans is uncommon, but sporadic cases and outbreaks do occur. | Most often disease is self-limiting. Can cause pneumonia and other severe illness. | House birds in clean environment with good air flow and avoid stress or overcrowding. Isolate sick birds. Psittacosis in captive birds is reportable to health units for appropriate follow-up of bird management to prevent human infection(s). |
| Rabies* (Mammal bites are reportable) | Dogs ✓ Cats ✓ Ferrets ✓ Any mammal in Ontario ✓ Raccoons, foxes, skunks ✓✓ Bats ✓✓✓ | Bite, scratches, contamination of mucous membranes/open skin with infectious saliva. Very rare in humans. | Almost always fatal. | Vaccine available for dogs, cats and ferrets. Bite prevention and bite first aid. Observation periods, rabies testing of animal or post-exposure prophylaxis following biting incidents. Limit possible exposure to wildlife. Avoid all contact with rabies reservoir species (<i>i.e.</i> bats, skunks, raccons and foxes) |
| Rat bite fever <i>Streptobacillus moniliformis</i> | Dogs ✓ Cats ✓ Ferrets ✓ Rats ✓✓✓ Mice ✓ Guinea pigs ✓ | Bite/scratch from infected rodent, close contact with infected rodent. Exposure to urine of infected rats. Risk of transmission is moderate. | Without treatment, infection can lead to serious complications and can be fatal. Very rare in humans. | Prevent contact with wild rodents, particularly rats. Do not allow cats, dogs, and ferrets to hunt or eat wild rodents. Bite avoidance and bite first aid. |
| Salmonellosis* | Reptiles ✓✓✓ Amphibians ✓✓✓ Dogs ✓ Cats ✓ Birds ✓ Rabbits ✓ Ferrets ✓ Other caged mammals* ✓✓ Poultry/Chicks ✓✓✓ Pet food ✓ More common in animals that are are fed raw animal protein | Fecal-oral. Numerous documented sporadic and outbreak cases of transmission from animals to children, especially from reptiles, amphibians (African dwarf frogs), and chicks. Transmission to humans from adult cats and dogs is unlikely if proper control measures are taken. | Many infections are self-limiting. In some cases infection can lead to serious complications and can be fatal, especially in infants. Chronic infection can occur in some cases. | Avoid housing animals in crowded conditions. Do not feed raw or undercooked meat to animals. Prompt removal of feces. Keep environment clean. Do not leave wet pet food in dishes at room temperature for extended periods of time. Do not allow animals to drink from unsafe water sources. Hand hygiene after handling animals. |

| Infectious Disease <i>* reportable to Public Health</i> | Prevalence in animals (✓ rare to ✓✓✓ common) | Route of Transmission and Risk to Children | Potential Serious Outcomes in Children | Specific Prevention Measures |
|--|--|---|---|---|
| | diets, or housed closely together in high numbers. Young animals are more likely to carry <i>Salmonella</i> , especially chicks. | | | |
| “Roundworms” | Dogs ✓ Cats ✓ Puppies/Kittens ✓✓✓ More common in young animals, dependent on geography. | Ingestion of eggs from feces that have been in the environment for days to weeks | When ingested, infective eggs hatch into larvae that can migrate anywhere in the body, causing damage to tissues and organs which can lead to serious consequences. | Parasite control regime for pet animals. Prompt removal of animal feces. |
| Toxoplasmosis | Cats ✓ | Exposure to feces that have been in the environment for at least 48 hours Risk of serious illness in children is low. Pregnant women who are newly infected can pass infection to her unborn child that may result in diseases of the nervous system and eyes. | Usually asymptomatic but very rarely causes severe illness in immune-compromised individuals. In health individuals, the parasite remains in the body in an inactive state, and can become reactivated if the individual becomes immunosuppressed. | Prevent cats from entering sandboxes, etc. Keep cats indoors. Do not allow cats to hunt rodents, birds or other small animals. Avoid changing litterboxes if you are pregnant or immunocompromised. |

*Other caged mammals include pets such as gerbils, hamsters, guinea pigs etc.

Note: The information provided in this chart was developed by the guidance document working group and is intended to support public health application of the guidance document. It should not take the place of advice provided by a physician or veterinarian.

Table 2: Other Rare Infectious Disease from Visiting/Resident Animal Contact (*reportable to public health)

| Infectious Disease (<i>*reportable to public health</i>) |
|--|
| Avian Influenza* |
| Brucellosis* |
| Capnocytophaga canimorsus infection |
| Contagious Ecthyma (Orf) |
| Dipylidium caninum (tapeworm) |
| Echinococcus (tapeworm) |
| Methicillin-resistant Staphylococcus aureus (MRSA) infection |
| Taenia spp. (tapeworm) |
| Tularemia* |
| Verotoxin-producing E. Coli (e.g. E. Coli 0157)* |
| Yersiniosis* |

Appendix 2. A Veterinary Care Statement for Resident Animals in Child Care Centres

How to Complete the Veterinary Care Statement for Resident Animals in Child Care Centres

- Step 1** The operator or supervisor of a child care centre is to complete the Animal Identification Section of this form for each animal resident at the child care centre (with the exception of fish and invertebrate species). If the animal is under a veterinary preventative care program, a new form needs to be completed on an annual basis.
- Step 2** The veterinarian who provides care to the resident animal is to complete the Veterinary Care Section of the form and sign it.
- Step 3** The child care centre operator or designate (i.e. supervisor) is to keep a current form on-site for the duration of the animal’s residency at the child care centre plus one year. Make the form available to public health staff, Ministry of Education staff, or parents/visitors who may request to see it.

Animal Identification (To be completed by the child care centre operator or supervisor.)

| Animal Identification |
|--|
| Species: |
| Name: |
| Sex: |
| Breed: |
| Colour/Markings: |
| Microchip or Tattoo Number: |
| Birthdate (yyyy/mm/dd or approximation): |
| Acquired Date (yyyy/mm/dd or approximation): |
| Name of Child Care Operator or Supervisor Completing Section: |
| Name and address of the child care centre at which the animal resides: |

Veterinary Care Statement

(To be completed by a veterinarian licensed by the College of Veterinarians of Ontario.)

The animal listed above is currently under a veterinary preventative care program which encompasses the following (strike out all that do not apply):

- yearly physical examination;
- nutritional advice;

- dental care;
- internal/external parasite control;
- vaccination program (includes rabies vaccination for dogs, cats or ferrets; **attach copy of rabies certificate**).

This certificate is valid for one year from signature date.

I certify that the information I have provided in this Veterinary Care Statement is true and accurate.

Signature of Veterinarian:

Date signed:

| Veterinary Signatory Details | |
|------------------------------|--|
| Last Name: | |
| First Name: | |
| CVO Licence Number: | |
| ClinicName: | |
| Telephone Number: | |

Appendix 2. B Veterinary Care Statement for Animals Visiting Child Care Centres

How to Complete the Veterinary Care Statement for Animals Visiting Child Care Centres

Step 1: The operator or supervisor of the child care centre to provide a form to the animal owner or person responsible for the visiting animal for each time an animal(s) visits the child care centre. If more than one animal owner has animal(s) visiting, provide a separate form for each animal owner.

Step 2: Have the animal owner or person responsible for the visiting animal complete the Animal Identification section of the form and sign it, and have their veterinarian complete and sign the Veterinary Care Statement section of the form.

Step 3: The child care centre operator is to keep the form on-site for one year. Make the form available to Public Health staff, Ministry of Education staff, or parents/visitors who may request to see it.

Animal Identification (to be completed by animal owner)

Please fill out the following table for all animals visiting the child care centre on (yyyy-mm-dd):

| Species | Animal Name or Unique Identification or Cage identification and number of animals | Rabies Vaccination Date |
|---------|---|-------------------------|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

Check if continued on back I certify that the information I have provided above is true and accurate, and that none of animals listed on this form have been fed raw or dehydrated (but otherwise raw) foods, chews or treats of animal origin within the 90 days preceding the visit to the child care centre.

Signature of Animal Owner:

Date signed:

| Veterinary Signatory Details | |
|-------------------------------------|--|
| Last Name: | |
| First Name: | |
| CVO Licence Number: | |
| ClinicName: | |
| Telephone Number: | |

