Fall 2005

Public Health for Kids

An Information Newsletter for Childcare Providers

Opening Remarks

Welcome to the Fall edition of our newsletter. The intent of this periodical is to provide information that you will find helpful and informative in the areas of communicable diseases and controlling the spread of infections. Your feedback is important so please give us a call if you have any issues you would like to see addressed.

In the spring newsletter we announced the pending release of the new Kids Health Manual, the increase in newsletter frequency from 2 to 4 times a year, and a workshop for childcare providers. Sometimes things don't work out as planned! We are happy to announce that dates for the workshop have been finalized and The Kids Health Manual is well on the way to completion! More details can be found inside.

Contents:

Infections in Childcare Centres

Children get infections whether or not they are in childcare centres; however, infections are more prevalent in childcare centres. Young children are more likely to catch infections because they have not developed the necessary protective immunities.

Why do children in childcare centres get more infections?

Children in group settings come in contact with many children so they have a much greater chance of getting an infection from another child. Children also share toys and touch each other during play, which spreads germs. Furthermore, many children have not yet learned to use the toilet properly and do not understand the importance of hand washing. Young children need a great deal of hands-on care.

It is especially difficult to prevent colds from spreading. Cold germs are spread:

- Through the air when children with colds cough or sneeze
- Through direct contact when children with colds touch their saliva or runny noses and then touch other children
- Through indirect contact when children with colds touch their saliva or runny noses and then touch an object, such as a toy or furniture (germs can live on an object for some time and can be picked up by an uninfected child who touches it)

Diarrhea germs are easily spread, especially among children who are still in diapers. These germs are found in bowel movements and are spread:

- When caregivers or children get the germs on their hands and then touch other children
- When caregivers or children eat food that has been prepared by someone whose hands had diarrhea germs on them

Source: Canadian Paediatric Society

Reusing a Plastic Water Bottle

A 2002 study published in the Canadian Journal of Public Health found that almost 65% of water samples taken from children's water bottles **did not** meet acceptable drinking water standards. Many of these students refilled the same water bottle without washing it. Almost 9% of the water samples tested had feacal coliform bacteria present in the water. The most likely source of the contamination was inadequate and improper hand washing after using the bathroom.

Multiple-use bottles or containers should be washed with hot, soapy water, rinsed, and refilled daily. Single-use pop and water bottles should not be re-used because preliminary research has shown that frequent washing might accelerate the breakdown of the plastic, potentially causing chemicals to leach into the liquid.

Asthma in the Daycare

Did you know?

- Asthma is the most common childhood disease.
- Approximately 12% of children and 7% of adults in Canada have asthma.
- Asthma is not contagious and cannot be spread from one child to another.
- Laughing or crying can sometimes cause asthma symptoms in children.
- Exercise is a common trigger factor in asthma. Symptoms may occur during or after exercise.
- Most children with asthma also have allergies.

Prevention strategies for daycares:

Children with asthma may be allergic to a wide variety of things, such as moulds, feathers, cats, and dust. Irritants, such as smoke, fumes, sprays, and cold air, are triggers for most children living with asthma.

- Do not keep furry animals or birds at the centre.
- Limit the child's exposure to pollen and dust (especially chalk dust).
- Don't expose the child to strong perfumes, shaving colognes, cleaning products, or art supplies, such as paints and magic markers with strong odours.
- Encourage the child to wear a neck warmer or scarf around their neck while outside in cold weather.
- Encourage the child to participate in physical activities only to the extent of his/her limitations.

Since colds and influenza can make some children's asthma worsen, frequent and thorough hand washing is encouraged for all children and caregivers to decrease the spread of cold and flu viruses.

The Lung Association, "Asthma in the School or Day Care" March 2003

Canadian Childcare Federation Occupational Standards for Childcare Practitioners

This document, a first for childcare providers in Canada, is a valuable tool for designing and delivering training, helping to identify training needs, and helping employees and directors explain their expectations of each other. It presents nine standards that outline the skills and abilities and core knowledge required for competent practice.

What are occupational standards?

Occupational standards describe what a person in a particular occupation must know and be able to do to be considered "competent" in that occupation. In general, being "competent" means that a person has the level of skills and knowledge required to do a job safely and properly. These occupational standards are intended for childcare practitioners who are responsible for a group of children. For people in this position, being competent means having the knowledge, skills, and abilities necessary to:

- work with children between birth and age 12 in a way that protects their health and safety, attends to their physical and emotional needs, and promotes their physical, emotional, social, communication, cognitive, moral, and creative development
- support families in meeting their responsibilities for their children; work with other professionals involved with the child and/or family to ensure cooperation and consistency in meeting the needs of the family

http://www.cccf-fcsge.ca

Childhood Illnesses: The Usual Suspects

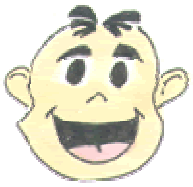
Does it seem like children are always fighting some bug? The average preschooler catches as many as 10 infectious diseases a year. Heading the list are common colds, stomach infection, and strep throat. Here is a lineup of the most common infectious illnesses that strike children.

Illness	Cause	How you Catch it	Symptoms	Prevention
Cold	Viral infection	By inhaling the virus or getting it on the hands and touching the mucous membrane of the nose or eye.	Sneezing, nasal congestion, sore throat, cough, mild fatigue, and fever.	Wash hands frequently. Avoid sharing eating utensils, food, towels, and handkerchiefs. Catch sneezes and coughs with disposable tissues and discard immediately.
Intestinal infection (gastroenteritis)	Viral infection	Through faecal-oral contact, mainly from unwashed hands. Respiratory transmission also may occur.	Nausea, vomiting, diarrhea, fever, and abdominal cramps.	Wash hands frequently. Avoid sharing eating utensils, food, towels, and handkerchiefs. Keep diaper-changing and food preparation areas widely separated. Wear latex or plastic gloves when cleaning up after a child with stomach flu.
Strep throat	Bacterial infection	By inhaling the bacteria or picking it up on the hand and touching the mucous membrane of the nose or eye.	Sore throat, pain with swallowing, fever, headache, and swollen tonsils and lymph glands.	Wash hands frequently. Avoid sharing eating utensils, food, towels, and handkerchiefs. Catch sneezes and coughs with disposable tissues and discard immediately.
Mononucleosis	Viral infection	Through close contact with an infected person — for example, sharing a glass or kissing.	Extreme fatigue, fever, headache, sore throat, rash, and swollen lymph nodes.	Wash hands frequently. Avoid sharing eating utensils, glasses, plates, towels, and napkins. Catch sneezes and coughs with disposable tissues and discard right away.
Chickenpox (varicella)	Viral infection	Through direct contact with an infected person. Can be spread before the infected person is aware of illness.	Red, itchy bumps that become blisters that dry and form crusts, muscle aches, fever, and fatigue.	Immunize your child with the varicella vaccine.
Head lice	Parasite	By direct contact with someone who has lice or with an infested person's recently used linens, clothing, comb, or brush.	Itching.	Avoid sharing clothing, hairbrushes or other personal belongings.
Pinkeye (conjunctivitis)	Bacterial or viral infection	When bacterial: by hand-to-eye contact after the hand picks up bacteria, often from the nose and throat. When viral: by transferring the virus from hand to eye.	Red, itchy eyes, blurred vision, sensitivity to light, and eye discharge that crusts during sleep.	Wash hands frequently. Avoid sharing clothing, towels and wash cloths. Keep hands away from eyes and don't share eye cosmetics.
Parvovirus	Viral infection	By direct contact with an infected person who has virus-bearing respiratory secretions on the hands.	Bright red raised patches on both cheeks and a reddish rash on arms, trunk, thighs, or buttocks.	Wash hands frequently. Avoid sharing eating utensils, food, towels, and handkerchiefs. Catch sneezes and coughs with disposable tissues and discard immediately.

With the exception of the chickenpox immunization, there is no fail-safe method to avoid any of the above infections, however, promoting and practicing good personal hygiene will go a long way toward preventing these common infections.

The Mayo Clinic, August 2004

How Lou Got the Flu



My name is Lou and I feel pretty rotten now.
I have a sore throat, a cough and achy muscles.
Doctor Petrie said I caught the flu: that's short for influenza.
My friends Sue, Hugh and Stu also caught it. I asked my doctor,
"where does the flu come from?" She said, "many scientists think the flu comes from ducks in China."

You'll see, my friend, you'll see...

How can a virus travel around the world?
Six months ago on a farm in China, there was a duck that carried a flu virus in its body. The duck was never lonely because over a billion ducks live in China. About a billion people live there too.
So how did it get from the duck to me?

You'll see, my friend, you'll see...

People can't become infected with duck viruses, so how did this flu spread to people?
Pigs! A farmer in China raises pigs. When the duck flew over the farm and pooped on the ground, a pig sniffed the duck virus into his body.
So how did it get from the duck to the pig to me?

You'll see, my friend, you'll see...

The pig spread the virus to many of the other pigs on the farm.
One day one of the baby pigs touched the farmers face and -you guessed it- he caught the flu virus.
So how did it get from the duck to the pig to the farmer to me?

You'll see, my friend, you'll see...

He was sick for a few days. Later he went to the market.

A little girl bought some red bean ice cream from him. When she was given her change, the farmer accidentally sneezed on the money. "I'm so sorry," said the farmer, "I'm just getting over the flu." "I hope you feel better soon," said the little girl and took a bite of the ice cream.

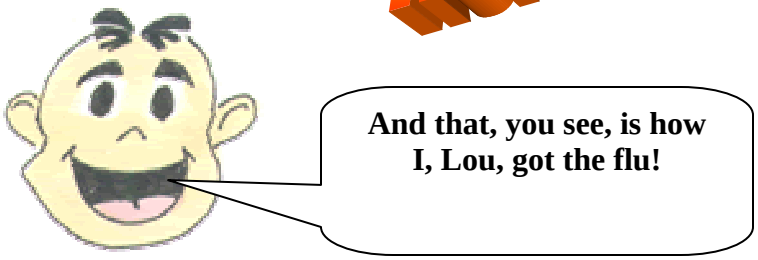
So how did it get from the duck to the pig to the farmer to the shopper to me?

You'll see, my friend, you'll see...

The next night the little girl was studying with her friend, Maria, who is from Canada. While they were studying they got thirsty. Since there was only one soda, they shared it. So how did it get from the duck to the pig to the farmer to the shopper to the student to me?

You'll see, my friend, you'll see...

The next week Maria flew home to visit her family. Guess what? They live on our street. Maria came over to visit and to show us pictures of China. She still had some sniffles from the flu but was feeling better. My dad made his famous pepper steak, but he used too much pepper and when he served Maria —



Adapted from: "How Lou got the Flu" American Museum of Natural History

Influenza:
Are childcare workers at risk?
You bet they are!

The National Advisory Committee on Immunization (NACI) provides the Public Health Agency of Canada with ongoing and timely medical, scientific and public health advice relating to immunization. Vaccination against the flu each fall remains the primary way to prevent influenza. Vaccination, along with other measures, will help to decrease the spread of influenza among children in the childcare setting and among care providers. During the 2004-05 flu season, over 60% of children admitted to the hospital due to influenza were age under 23 months.

The NACI recommendation for those persons at high risk of acquiring or spreading influenza now includes childcare providers; those providing regular childcare to children age 0 to 23 months, whether in or out of the home.

Healthy children age 6 to 23 months. Children in this age group are at increased risk of influenza-associated hospitalization, compared with healthy older children and young adults.

Germs, germs everywhere,
Even on a little pear.
Germs, germs all around,
Even on the dirty ground.
Germs, germs make me sick,
Especially on a candy stick.
Germs, germs are so small,
Even on a bouncy ball.

Coughs and Sneezes Spread Diseases

Always remind children to:

- **Cover their nose and mouth** with a tissue when they cough or sneeze and have them throw the tissue away after they use it.
- **Wash their hands often with soap and water,** especially after they cough or sneeze. If water is not nearby, use an alcohol-based hand sanitizer.
- **Not to touch their eyes, nose or mouth** because germs often spread this way.

Pneumoccal Vaccine

The conjugate pneumococcal vaccine (Prevar) protects children under five years of age who are at higher risk for pneumococcal infections, such as pneumonia, bacteremia (infection of the blood), meningitis (infection of the brain), sinus infections, and ear infections.

Pneumococci bacteria are quite common and can live at the back of the nose and throat without causing symptoms of illness. People of all ages can be healthy carriers of pneumococci, but young children are the most frequent carriers of the bacteria.

The bacteria is spread through droplets in the air from coughing and sneezing. Bacteria can also be spread through the saliva of an infected person when common items are shared, such as beverages (bottles, straws), eating utensils or toys that have been chewed on. Every year in Canada, about 65 infants under two years of age suffer from meningitis, 700 have bacteremia, 2,200 have pneumonia, and 200,000 have an ear infection.

The pneumococcal conjugate vaccine helps protect young children from these diseases. It is free for children born on or after January 1, 2004 under two years of age. The schedule used and the number of does required (up to 4 doses) will depend on the child's age at the time of the first dose of vaccine. The vaccine is also available for two to five year olds with certain medical conditions and should also be considered for children attending daycare centres.

For more information on this vaccine, call Public Health and ask to speak to a public nurse in the Vaccine Preventable Diseases Program.

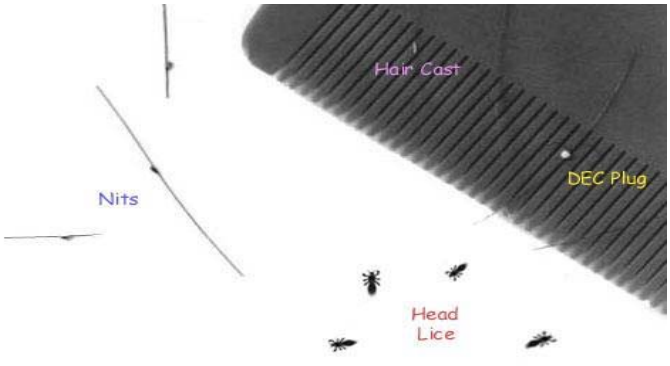
Corrie Marshall, Public Health Nurse
Vaccine Preventable Diseases Program

Head Lice: The Annual Head Lice Search

How are head lice spread?
Head lice are spread through direct contact among children or indirectly on items, such as hats, combs, hairbrushes, and head phones. They don't fly or hop, but they can crawl very quickly.
Although head lice often make the scalp itchy, it is possible to have them without any symptoms. Head lice can't live on pets, such as cats or dogs.
Head lice can live up to 3 days off the scalp. Although the eggs can also survive for up to 3 days, they need a warm environment to develop. Eggs are not likely to hatch at room temperature.

How to tell if a child has head lice?
To diagnosis a case of head lice, you need to find live lice. On average, children with head lice will have no more than 10 to 20 live lice. They move fast and are only about the side of a sesame seed so they can be hard to find.
Finding nits or eggs, which are bigger and easier to see, close to the scalp suggests that there may be a case of head lice. Remember that a child can have a few nits without actually having a case of head lice.
If you think a child may have head lice, check the hair for nits immediately, after one week and again after two weeks if another child has head lice.

Where to look:
- close to the scalp
- behind the ears
- back of the neck
- top of the head



www.headlice.org

What to look for:
- One of the first signs of head lice is itching and scratching the head. Still, it's possible to have head lice without any symptoms.
- Adult lice, which are 2-4 mm long, are hard to see.
- The nits (eggs) are easier to see. Nits are greyish-white and oval shaped.
- Nits are firmly attached to the hair close to the scalp. They may look like dandruff but cannot be flicked off.

How to check:
Good lighting is important. Look for nits by parting hair in small sections, going from one side of the head to the other. Check carefully, looking close to the scalp.

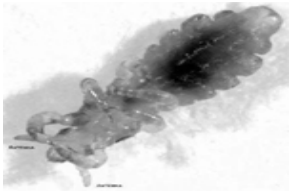


Figure 1: An adult louse measures 2 to 4 mm.

www.headlice.org

Should the daycare be disinfected if someone has head lice?
Since head lice don't live long off the scalp and the eggs aren't likely to hatch at room temperature, you don't need to do excessive cleaning.
If you want to get rid of lice or nits from specific items, such as hats or pillowcases, one of the following methods will kill them:
- Wash the items in hot water (66°C) and dry in a hot dryer for 15 minutes.
- Store the items in an airtight plastic bag for two weeks.

Should children with head lice stay home from daycare?
Children with head lice should be treated and can attend school or childcare as usual, subject to the facility's policy on head lice exclusion.
Schools and childcare centres should let families know when there is a case of head lice in the centre and provide information about diagnosis and treatment.

CPS Infectious Diseases and Immunization Committee: Paediatrics & Child Health, October 2004

E. COLI O157:H7 Spreads in Alberta Daycare

(Selected exerts)

A 3 year old boy became ill on June 4, 2002 with bloody diarrhea, fever, and vomiting. His symptoms progressed to hemolytic uremic syndrome (HUS) requiring hospitalization and renal dialysis. Stool cultures were taken when he was taking antibiotics but were negative for *Escherichia coli* O157:H7; however, Public Health received two laboratory reports of *E. coli* O157:H7 disease among children attending the same daycare facility as the index case.

Eight of the children attending the daycare centre had laboratory confirmed *E. coli* O157:H7 disease, five children had compatible symptoms and one community dweller had laboratory confirmed *E. coli* O157:H7 disease.

E. coli O157:H7 is an enteric bacterium transmitted faecal-orally. Infection usually presents as abdominal pain and diarrhea, which sometimes leads to hemorrhagic colitis. HUS develops in approximately 15% of pediatric cases and approximately 5% die. *E. coli* O157:H7 can be transmitted by contaminated food or water, from person-to-person or through environmental vectors, such as animals.

The daycare children were divided into six groups based on age: infants, toddlers, 3 year olds, 3½ to 4 year olds, 4½ year olds, and 5 year olds including some older children attending before and after school. Before 8:30 am, after 4:30 pm and during nap time were the only times that daycare children shared a common room. All children except infants and toddlers used the same bathroom.

The daycare centre's policy in relation to diarrhea symptoms was to call the parents to collect their child if the child had more than one loose bowel movement in a day.

At the time of the outbreak, the daycare centre had 64 attendees and 15 staff. By July 10, 2002, a total of 17 cases of *E. coli* O157:H7 disease had been reported associated with the daycare outbreak. Fifteen of the 17 cases were children attending the centre, one was a sibling and one was a child sharing the same bus and grade school as some of the daycare children. Two cases suffered HUS and required renal dialysis. None of the cases died. No asymptomatic infected individuals were found.

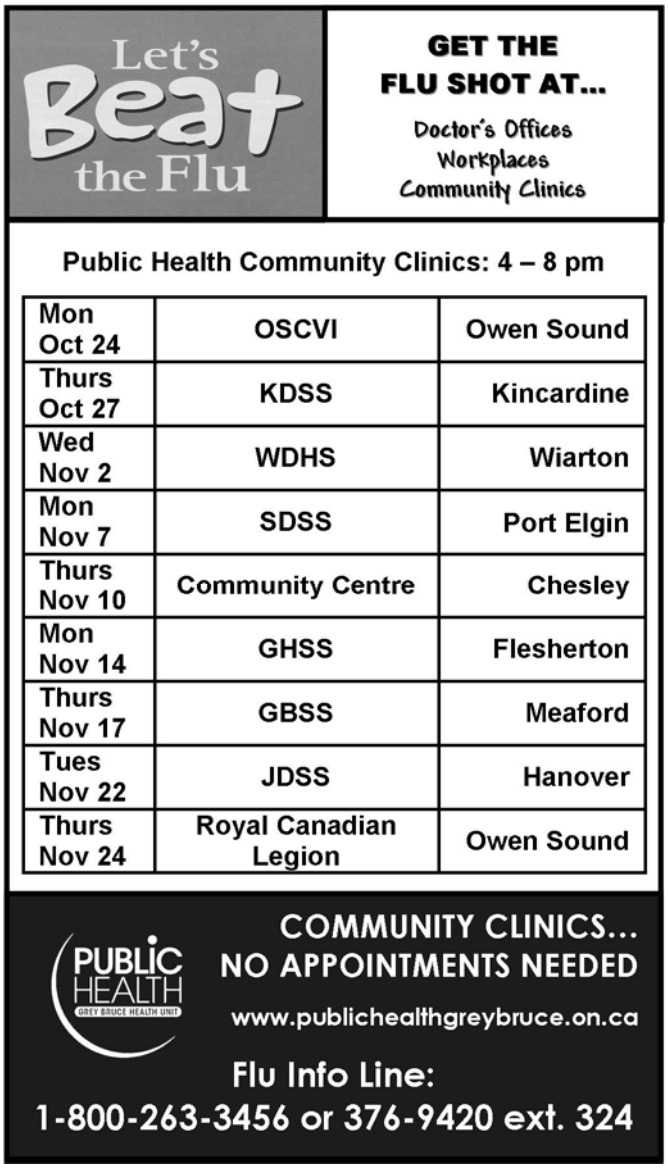
The first case occurred in the classroom for 3 to 4 year olds. The second case attended the 4½ to 5 year old classroom and was followed by five more cases in the same classroom. In total, eight (54%) of the 15 daycare cases attended the 4½ to 5 year old classroom, four (26.7%) were from the 3 to 4 year old classroom and three (20.0%) were from the toddler room.

Eleven of the 15 staff were interviewed. None of the staff met the case definition. Staff were not able to identify children with diarrhea other than the known cases. In many instances, the staff were not aware of the known cases.

E. coli O157:H7 was likely brought into the centre by the index/primary case on June 4, 2002. In the 4 days prior to his illness, the index case visited two farms. One farm raised cattle, although no direct contact with cattle was reported. No other high-risk activities or high-risk foods were identified. Three days after the index case became ill at the centre, the second case became ill. Attendance records gave evidence of person-to-person transmission, showing that each successive case was present at the centre during the time an ill child was present.

The single most important contributing factor to the spread of disease in this outbreak was the continuous presence of children who were shedding *E. coli* O157:H7 or who were symptomatic at the daycare centre. This provided the opportunity for transmission to other children through direct contact or contaminated fomites or surfaces. Unobserved toilet visits with poor hand washing may have contributed to the spread. The second case, who became symptomatic on June 7, shed *E. coli* O157:H7 in his stool until at least July 10. This case was only identified because of the stool testing carried out as part of the outbreak response. Although shedding of the bacteria is intermittent, this asymptomatic carrier may have continued to expose children to *E. coli* O157:H7 in the daycare centre.

Canada Communicable Disease Report
Volume 29-03 1, February 2003



WHEEZES & DISEASES
A WORKSHOP FOR CHILDCARE PROVIDERS

An educational event for childcare providers to update their knowledge and to introduce the new Kids Health Manual

Topics include: infection control, outbreak management and pandemic influenza

Guest Speakers to include: Jacqui Smith, Wyeth Pharmaceuticals & Kathy McMurdo, Director of Children's Services, Grey County

November 8, 2005
Stone Tree
Owen Sound

November 16, 2005
Best Western
Kincardine

Invitation and Registration Form to follow in early October.

Myths and Facts About the Common Cold

Myth:
"If you take Vitamin C each day, you'll keep colds away."
Fact:
Research has proven that Vitamin C does not prevent colds; however, some studies have shown that Vitamin C may actually help people weather colds better.
When a child has a cold, oranges, grapefruits and juices with Vitamin C added may reduce the severity and length of the cold. Drinking lots of water and eating soups are good ideas too.

Myth:
"If you have a cold, don't drink milk....it causes mucus."
Fact:
While there is little evidence to support the belief that milk causes mucus, we do know that viral infections themselves often result in the production of mucus. Besides mucus, other common cold symptoms include tiredness, irritability and poor appetite. To speed up recovery from a cold, it is important to get your child's eating pattern back on track. Choosing nutrient dense foods, such as milk, is important when kids don't want to eat or drink much. Your child may find milk easier to swallow if it is heated (hot chocolate) or added to other favourite foods, such as soups and pudding.

Myth:
"If you go outside with wet hair, you'll catch a cold".
Fact:
Colds are caused by viruses. There is no need to restrict activities like swimming. Make sure children dry their heads before going outside because they can lose body heat, especially with cooler winter temperatures.

Things You Can do to Help Prevent a Cold

- Remind children to wash their hands after they use the toilet, before they prepare or eat food, and after they wipe their nose.
- Remind children not to share food or drinks, cutlery, dishes, bottles, or cups.
- Remind children to cover their mouths when coughing or sneezing and to wash their hands afterwards, especially before rubbing their eyes.
- Encourage children to use a tissue instead of their sleeve. Be sure the tissue goes in the garbage immediately after use.

The 12 Most Common Infectious Diseases Preventable by Effective Hand Washing

- Shigellosis
- Hepatitis A
- E.coli 0157:H7
- Salmonellosis
- Campylobacteriosis
- Common Cold
- Influenza
- Giardiasis
- Impetigo
- Fifth Disease
- Conjunctivitis (Pink-Eye)
- Enterobiasis (Pinworms)

Hand washing helps prevent lead poisoning in children.
If microorganisms are on the hands they can enter your body via food or water, by placing contaminated hands in the mouth, nose or eyes, or by touching open sores as in the case of impetigo.

Kansas Department of Health and Environment

Public Health for Kids is published twice yearly by the Infectious Disease Team of the Grey Bruce Health Unit. We encourage you to contribute articles or submit questions that we can share with your colleagues. Contact us at:
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