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Message from the Medical Officer of Health

I am very pleased to share with you our 2015 spring issue of the Advisory. This has been a long and very cold winter and I'm looking forward to the return of chirping birds, green grass, and temperatures on the plus side of the thermometer.

This winter has been a busy and challenging one for public health and local health care providers. An unexpected outbreak of hepatitis A reminded us all of the vigilance required when handling food. It also tested our ability to react, coordinate, and contain a local situation that produced a groundswell of attention.

In this issue, we continue to share and promote timely topics that may be of interest.

New resources for pregnant women are available as we work together to combat tobacco and try to convince the public that quitting is possible. *Pseudomonas* folliculitis or the "hot tub rash" is starting to present itself more often. And with warmer weather comes deer ticks, making Lyme disease a subject we all may need to revisit with patients.

Please read and share these articles with your colleagues, clients, and fellow health care professionals.

I wish you all the best and please enjoy a safe, healthy, and warm spring.

Sincerely,

Dr. Penny Sutcliffe
Medical Officer of Health

Pregnant and smoking? How to help your patients

Terri Lazinski, Public Health Nurse, Health Promotion

Pregnancy is an optimal time where couples are highly motivated to change their behaviours.

Smoking during pregnancy has serious harmful effects on the woman, the fetus, and the child. There are approximately 1 800 births per year in the Sudbury District area and 25% of these women indicated they smoked at some point during their pregnancy. Comparatively, in 2011-2012, 9% of women in Ontario reported smoking during their pregnancy at 20 weeks gestation or later.

The *Because I Matter* campaign, developed by RNAO, and other resources developed collaboratively with MotherRisk and Smokers' HelpLine, provides best practice resources for women and health care providers to promote smoke-free pregnancies. A woman centered lens helps pregnant women and new mothers become smoke-free.

The majority of people who use tobacco want to quit.

The resources examine attitudes towards mothers who smoke to help increase awareness, reduce stigma, and to discuss approaches for health care providers. Approaches include interviewing and counselling mothers on the risks of smoking and of smoking cessation interventions (including medications).

Because I Matter

Because I Matter is a new poster series from RNAO for health-care providers working with pregnant and postpartum women who use tobacco.

These new posters are available at no cost (excluding shipping) through the RNAO Online Store at <https://shop.rnao.ca/>.

For more information, contact Julie Burris, Best Practice Guidelines Sales Coordinator, at 416.907.7965 or by email at jburris@rnao.ca.

PREGNETS (Prevention of Gestational and Neonatal Exposure to Tobacco Smoke)

Another smoking cessation in pregnancy resource for women and health care providers is Pregnets. The mission of Pregnets is to improve the health of moms and their babies by offering information, resources, and support to pregnant and postpartum women and their health care providers.

This includes information on stress, common questions



and answers, and self-help materials for quitting or reducing smoking.

Visit the PREGNETS website, www.pregnets.org, for up to-date information on smoking cessation practices for pregnant and postpartum women, a toolkit for health care providers, an anonymous online discussion board, and a personalized plan for quitting or reducing smoking.

The majority of people who use tobacco want to quit . . . pregnant women may feel stigmatized and may not get the information that they need to help them to stop. Your patients can also visit www.pregnetsblog.com where women can share challenges related to pregnancy and quitting smoking. Health care professionals are encouraged to use the best practice of Minimal Contact Intervention with their pregnant patients and new moms.

You Can Make It Happen

In less than three minutes you can make the difference in the health of your patients and clients.

Download the printable The 5 As reference card online at <http://youcanmakeithappen.ca/>.

"You Can Make It Happen" is a comprehensive source of information, tools and resources about tobacco cessation for healthcare providers, provided by Public Health Units and Smokers' Helpline.

THE 5 AS

ASK about tobacco use at every visit

ADVISE all tobacco users to consider quitting

ASSESS tobacco users' readiness to quit

ASSIST according to client readiness

ARRANGE for referral and follow-up

Supporting breastfeeding families

Julia Ritchie, Public Health Nurse, Clinical and Family Services

More than 80% (BORN, 2013¹) of families within Sudbury & District make the decision to breastfeed their infants. Help support these families with the two following resources.

Latching On: How Family Physicians Can Support Breastfeeding Patients

This new online FREE one-hour module for family physicians provides information on:

- the Baby-Friendly Initiative ;
- the importance of breastfeeding and risks associated with formula use;
- the identification and management of common breastfeeding problems; and
- specific resources and services for breastfeeding support and medical management, including when and where to refer.

Latching On: How Family Physicians Can Support Breastfeeding Patients is produced by the Faculty of Medicine at the University of British Columbia

This program is accredited by The College of Family Physicians of Canada and the Ontario Chapter for up to 1 Mainpro-M1 credit.

More than 80% of families within Sudbury & District make the decision to breastfeed their infants.

Breastfeeding protocols for health care providers

These in-depth protocols were developed for use by health care professionals when working with clients in the community experiencing breastfeeding challenges. The protocols include:

- Sore Nipples (Protocol #4)
- Insufficient Breast Milk Supply (Protocol #12)
- Indications for Supplementation or Cessation of Breastfeeding (Protocol #17)
- Breastfeeding the Older Child (Protocol #20)

You can access the [Breastfeeding Protocols for Health Care Providers](#) on Toronto Public Health's website under Health Professionals in the Maternal & Child Health section.

Baby-Friendly Initiative

In 2012 the SDHU made a decision to become Baby-Friendly for the benefit of our clients and the community. We are currently working towards designation by the [Breastfeeding Committee for Canada](#).

If you would like to know more about the Baby-Friendly Initiative or become more involved in breastfeeding at the community level, please contact the Health Unit's Family Health Team at 705.522.9220, ext. 427.

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LATCHING ON

**Access this module
anytime, anywhere, from
any device at
[http://ubccpd.ca/course/
breastfeeding-fp](http://ubccpd.ca/course/breastfeeding-fp)**



Sodium in our drinking water supply

Burgess Hawkins, Manager, Environmental Health

Sodium levels are routinely monitored in all government regulated water supplies in the province of Ontario.

The aesthetic objective for sodium in drinking water is 200mg/L, at which point it can be detected as a salty taste. Sodium is not considered a toxic element. A maximum acceptable concentration for sodium in drinking water has, therefore, not been specified.

The average intake of sodium from water is only a small fraction of that consumed in a normal diet. However, persons suffering from hypertension or congestive heart failure may require a sodium-restricted diet, in which case, the intake of sodium from drinking water could become significant.

The local Medical Officer of Health is required to be notified when the sodium concentration exceeds 20mg/L, so that this information may be passed on to local physicians.

Sodium in common foods

Below are some examples of sodium content from Health Canada's Nutrient Value of Some Common Foods, 2008. View the report online at www.healthcanada.gc.ca/cnf.

Table 1. Sodium content from Health Canada's Nutrient Value of Some Common Foods, 2008

Common Food	Measure	Sodium (mg)
Bread, whole wheat, commercial (page 5)	1 slice	184
Milk, skim (page 22)	250mL	109
Chicken, broiler, breast, meat, roasted (page 32)	75g	56
Soup, chicken vegetable, chunky (page 43)	250mL	1 128
Potato chips, plain (page 51)	1 small bag	229
Pickles, cucumber, dill (page 55)	1 medium pickle	833
Olives, pickled, canned or bottled (page 55)	4	249

Note: This publication lists the nutrients most relevant in terms of public health and contribution to the food supply of 1 100 of the most commonly consumed foods in Canada.



Sodium concentrations in water systems

Water systems reported to have sodium concentrations higher than 20mg/L are listed below.

Details regarding specific water supplies may be obtained by contacting the local municipal office.

Facility	Location	Date	Sodium concentration (mg/L)
C. A. MacMillan Place Well Supply	Webbwood	2010	26.9
Chapleau Drinking Water System	Chapleau	2013	23.7; resample 22.8
David Street Water Treatment Plant	Sudbury	2010	58.4; resample 55.1
Dowling Well Supply	Dowling	2010	22.2/35.9; resample 20/31.4
Falconbridge Well Supply	Falconbridge	2010	22.8/22.4/28.8; resample 21.5/20.7/21.5
Garson Well Supply	Garson	2010	73.1/28.3; resample 60.3/24.1
Gervais Trailer Park	Chapleau	2011	127
Gogama Well Supply	Gogama	2013-2014	22.9; resample 21.8
Humarcin Residents' Organization	Sudbury	2011	102.4
Maytown Mobile Home Village	Massey	2013	45.6; resample 46
Onaping/Levack	Onaping/Levack	2010	67.3; resample 61
Peace Valley Trailer Park	Wahnapiatae	2011	107.1
Valley Wells and Distribution System	Valley East	2010	62.7/23.7; resample 69.8/22.2
Warren Well Supply	Warren	2009	87

Note: Many of the distribution systems within a community may reflect a blended supply of water.

WE'RE ON CALL 24/7 FOR REPORTABLE DISEASES

CALL the Health Unit
705.522.9200, ext. 464

AFTER-HOURS
705.688.4366



How to remove a tick

- If you see a tick on your skin, remove it as soon as possible. Ask someone to check areas you cannot see.
- Carefully remove the tick by snugly grasping its front end with tweezers. Pull it straight out. **DO NOT SQUEEZE THE TICK.** If any parts remain, see a physician.
- Wash your hands and the site of the bite with soap and water, and disinfect the site.
- If you can, place the live tick in a jar or screw-top bottle, and take it to your local health unit.

Prevention

- Wear long-sleeved shirts, long pants, closed toe shoes, and high socks. Tuck pant legs into socks.
- Wear light-coloured clothes so that ticks can be easily seen.
- Check for ticks daily – they are often found on the scalp, thighs, arms, armpits, and legs. They are very small and may look like "new" freckles.
- Use a tick repellent that has "DEET" (following the manufacturer's directions for use). Apply it to your skin and outer clothing. Avoid your eyes and mouth, as well as cuts and scrapes.
- Put a tick and flea collar on your pet and check them for ticks periodically.

Lyme disease

Holly Browne, Manager, Environmental Health

A vector-borne infection caused by the spirochete *Borrelia burgdorferi*, Lyme disease is transmitted in Ontario by the bite of blacklegged ticks (also called deer ticks). Transmission occurs if the tick feeds for more than 24 hours on a host. The blacklegged tick is found sporadically throughout the province, along the north shore of Lake Erie, Lake Ontario, and the St. Lawrence River. There has been an increase in the number of Lyme disease cases in Ontario as a result of tick populations expanding into new areas of the province.

There has been one lab-confirmed case and several suspect cases over the past two years in the Sudbury and Manitoulin districts. The infection may have been acquired locally but this could not be confirmed. Surveillance data indicate that a small number of blacklegged ticks are introduced into widely separated areas of Canada by migratory birds, posing some risk to individuals in other areas.

Clinical manifestations^{2,3}

1. **Early localized (median: four weeks)**
 - erythema migrans (“bull’s eye rash”) at the site of the tick bite
 - “flu-like” illness, stiff neck, lymphadenopathy
2. **Early disseminated (days to months)**
 - cardiac (palpitations)
 - dermatologic (multiple erythema migrans lesions)
 - musculoskeletal (arthritis, myalgia)
 - CNS (lymphocytic meningitis, facial nerve palsy, encephalitis)
 - Peripheral nervous system disease (radiculopathy)
3. **Late disease (months to years)**
 - arthritis (monoarticular, oligoarticular)
 - neurologic (encephalomyelitis, peripheral neuropathy)



The incubation period of Lyme disease is 3-30 days and the main risk factor is travel outdoors. The differential diagnosis is broad, and may include influenza, Lou Gehrig’s disease, meningitis, arthritis, or Bell’s Palsy.

Serology

Serology for IgM and IgG antibodies against *B. burgdorferi* are detected using enzyme-linked immunosorbant assay (ELISA). If the result is positive, or indeterminate, a western blot is performed. Serological samples are sent to a Public Health Ontario laboratory on request, and results are sent directly to the ordering physician. Positive results are also sent to the local health unit. Serology may not be positive early in the course of illness, in which case the patient should be tested again in four weeks⁴.

Treatment

Treatment is with antibiotics (amoxicillin and doxycycline are commonly used), and in the early stage will usually result in a good prognosis. Treatment during the later stages typically requires intravenous antibiotics. The 2006 guidelines developed by the Infectious Diseases Society of America outlines the treatment regimen: <http://cid.oxfordjournals.org/content/43/9/1089.full>.

For more information on Lyme disease, visit: www.ontario.ca/lyme. For more information about insect repellents, visit: [http://www.healthy Canadans.gc.ca/healthy-living-vie-saine/environnement-environnement/pesticides/insect-repellents-insectifuges-eng.php](http://www.healthy Canadians.gc.ca/healthy-living-vie-saine/environnement-environnement/pesticides/insect-repellents-insectifuges-eng.php).

Pseudomonas folliculitis – Hot tub rash

Ashley Pepin, Public Health Inspector, Environmental Health

Pseudomonas folliculitis^{5,6,7} is typically a benign, self-limiting rash; however, it may easily be mistaken for chicken pox, scabies, and other infections. Awareness is therefore essential to prevent unnecessary diagnostic testing and treatment options.

Hot tub rash

Often referred to as “hot tub rash”, it results from skin exposure to water contaminated with *Pseudomonas aeruginosa*; typically in hot tubs, swimming pools, waterslides, and physiotherapy pools.

This common rash usually appears on the trunk, legs, arms, axillae, and buttocks, and is often worse in locations where a swimsuit was in contact with the skin. The lesions typically develop 48 hours after contact with contaminated water and may persist for up to two weeks. Patients may also present with malaise, headache, nausea, vomiting, sore eyes, sore throat, fever, swollen breasts (in both sexes), and swollen axillary lymph nodes.

Risk factors for hot tub rash

- prolonged water exposure
- excessive number of bathers
- inadequate pool or hot tub maintenance
- and wearing tight-fitting swimsuits

Initially, the rash starts out as flat, red, and itchy and can progress to raised or fluid-filled lesions which may become crusted. The face, neck, soles of feet and palms of hands are usually spared. Despite the rash causing discomfort, most cases clear within two to 10 days. *P. aeruginosa* is resistant to nearly all common topical and oral antibiotics and no indication exists that the course of the skin condition in a healthy individual is altered with treatment. However, in immunocompromised patients the infection could develop into a more serious infection which may become systemic and cause septicemia, and a course of ciprofloxacin may be advised.

While *Pseudomonas* folliculitis occurs in all age groups, children tend to spend more time in the water than adults and therefore are more prone to acquiring this infection. There have also been cases of scuba divers presenting with the rash after wearing wet suits.

Diagnosis

Diagnosis is generally based on clinical presentation and history of recreational water use within the last five days. A small skin biopsy may be used to help confirm the diagnosis if the physician feels it is warranted.

Prevention

Preventive measures include: limiting time spent in hot tubs/swimming pools, maintaining sufficient disinfectant levels in these recreational waters, and showering with soap and water after getting out of the water.

References

Supporting breastfeeding families ([page 4](#))

- 1 [Birth Outcomes Registry & Network](#) (BORN) database, SDHU Local Data, 2013.

Lyme disease ([page 8](#))

- 2 American Academy of Pediatrics. In: Pickering LK, Baker CJ, Kimberlin DW, Long SS, eds. Red Book: 2009 Report of the Committee on Infectious Diseases. 28th ed. Elk Grove Village, IL: American Academy of Pediatrics; 2009.
- 3 Wright WF, Riedel DJ, Talwani R, Gilliam BL. Diagnosis and management of Lyme disease. Am Fam Physician. 2012 Jun 1;85(11): 1086-93.) <http://www.health.gov.on.ca/en/ms/lyme/pro/>
- 4 Sider, D. Patel, S. Russell, C. Jain-Sheehan, N. Moore, S. Technical report: update on Lyme disease prevention and control. Public Health Ontario. February 2012.

Pseudomonas folliculitis – Hot tub rash ([page 10](#))

- 5 Toner, Charles B., 2014 Sept 12, Pseudomonas Folliculitis . Retrieved from: <http://emedicine.medscape.com/article/1053170-overview>
- 6 Baruchin AN., Shapira A.,Scharf S., Rosenberg L., 1996, Dec, PSEUDOMONAS FOLLICULITIS ACQUIRED FROM HOT TUBS AND WHIRLPOOLS: AN OVERVIEW. Retrieved from: http://www.medbc.com/annals/review/vol_9/num_4/text/vol9n4p204.htm
- 7 Centers for Disease Control, 2014, Apr., "Hot Tub Rash" (Pseudomonas Dermatitis / Folliculitis). Retrieved from: <http://www.cdc.gov/healthywater/swimming/rwi/illnesses/hot-tub-rash.html>

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