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Section 1 – Health and Wellness Issues

Helping Canadians Recognize a Stroke and Act "FAST"

The Heart and Stroke Foundation has launched a new national campaign to raise awareness of the signs of stroke based on FAST, a simple and effective educational approach that is being used in many countries with success. The ability to recognize the signs of stroke and take quick action can mean the difference between life and death, or between a full recovery and lasting disability.

FAST stands for:

- Face – is it drooping;
- Arms – can you raise both;
- Speech – is it slurred or jumbled; and
- Time - to call 9-1-1 or your local emergency service right away.

As a public awareness approach, FAST has been translated into several other languages around the world. In Quebec, the campaign will use VITE, for Visage, Incapacité, Trouble de la parole and Extrême urgence. FAST and VITE are short words that provide an easy way to remember the major signs of stroke, and remind people to take action as quickly as possible.

Not enough Canadians recognize the signs of stroke and know what to do. Stroke is the number three killer of Canadians, and one of the leading causes of disability. There are an estimated 62,000 strokes in Canada each year; that is one every nine minutes. More than 80% of Canadians who have a stroke and make it to the hospital will survive, with varying degrees of recovery.

Toronto resident Stacey Yepes, 49, knows too well the importance of recognizing the signs of stroke. Last spring, Stacey made international headlines after recording herself on her mobile phone while experiencing a stroke, in order to show physicians her signs.

"The first time I had a stroke I immediately went to the emergency department. Having no visible symptoms and being in good health, I was told it was stress," said Yepes. "I didn't think it was stress, and within a few days I had two more strokes. The third time, when I felt my left side going numb, I grabbed my phone and hit record, so that I could show doctors exactly what I was experiencing." A subsequent MRI revealed Yepes had suffered a transient ischemic attack (TIA), also called a mini-stroke, resulting from atherosclerosis (a buildup in plaque in the arteries).

Although stroke is most common in people over the age of 70, the Heart and Stroke Foundation's Stroke Report 2014, published in June 2014, revealed an alarming escalation in the incidence of stroke among those under 70. Over the past decade, strokes in people in their 50s have increased by 24% and for those in their 60s, by 13%. Even more alarming, recent international studies predict that stroke rates among younger people (ages 24-64) will double in the next 15 years.

The signs of stroke campaign will integrate various components including social media, direct communication with our donors and other stakeholders, and an educational TV spot that began airing in late December. The Foundation hopes to expand the reach of the TV ad to the rest of the country with support from other provincial governments or corporate partners.

Source: Heart and Stroke Foundation, December 2014

An Avocado a Day Keeps Cholesterol at Bay

Eating one avocado per day as part of a moderate-fat diet can improve cholesterol levels, according to researchers from the American Heart Association. The researchers wanted to see what would happen if saturated fatty acids from a typical diet were replaced with avocados, which contain unsaturated fat.

They put the 45 overweight or obese participants, between the ages of 21 and 70, on three different diets intended to lower cholesterol. In the beginning, the dieters consumed 34% of their daily calories from fat sources, 51% from carbohydrates, and 16% from protein, an allocation which researchers say mirrors an average American diet.

After two weeks on this diet, researchers placed each participant randomly on one of three cholesterol-lowering diets until each person had followed each of the three diets for a total of five weeks. They stuck to a regime that was either low-fat with no avocado, moderate fat with one avocado per day, or a moderate fat diet without avocado. In the two moderate-fat diets, 34% of calories came from fat, with 17% from monounsaturated fatty acids (MUFAs) and the lower fat dieters sourced 24% of their calories from fat with 11% coming from MUFAs.

Following the moderate fat diet with the daily avocado resulted in a drop in 'bad cholesterol,' low-density lipoprotein (LDL), of 13.5 mg/dL on average, when compared to readings taken after having followed the average American diet. Following the moderate fat diet without the avocado resulted in an 8.3 mg/dL drop in LDL levels and the lower fat diet resulted in a drop of 7.4 mg/dL.

"This was a controlled feeding study, but that is not the real-world," says Kris Etherton, Ph.D., R.D., senior study author and Chair of the American Heart Association's Nutrition Committee and Distinguished Professor of Nutrition at Pennsylvania State University, in University Park, Pennsylvania. "So it is a proof-of-concept investigation. We need to focus on getting people to eat a heart-healthy diet that includes avocados and other nutrient-rich food sources of better fats."

Source: CTV News, January 2015

Are Seniors With Diabetes Overtreated?

Many older people with diabetes may be exposed to potential harm because doctors are trying to keep overly tight control of their blood sugar levels, a new study argues. Researchers found that nearly two-thirds of older diabetics who are in poor health have been placed on a diabetes

management regimen that strictly controls their blood sugar, aiming at a targeted hemoglobin A1C level of less than 7%.

These patients are achieving that goal through the use of medications that place them at greater risk of hypoglycemia, a reaction to overly low blood sugar that can cause abnormal heart rhythms, and dizziness or loss of consciousness, the researchers said. Further, tight diabetes control did not appear to benefit the patients, the researchers report January 12, 2015 in *JAMA Internal Medicine*. The percentage of seniors with diabetes in poor health did not change in more than a decade, even though many had undergone years of aggressive blood sugar treatment.

Diabetes is common among people age 65 and older. But doctors have struggled to come up with the best way to manage diabetes in seniors alongside the other health problems they typically have, researchers said in background information with the study. For younger and healthier adults, the American Diabetes Association has recommended therapy that aims at a hemoglobin A1C level of lower than 7%, while the American Association of Clinical Endocrinologists recommends a target of lower than 6.5%. The A1C test provides a picture of your average blood sugar levels for the past two to three months.

In this study, the authors analyzed 2001-2010 data on 1,288 diabetes patients 65 and older from a U.S. survey. The patients were divided into three groups based on their health status. About half were considered relatively healthy despite their diabetes; 28% had complex/intermediate health, in that they also suffered from three or more other chronic conditions or had difficulty performing some basic daily activities. Roughly 21% had very complex/poor health, and were either dependent on dialysis or struggling with activities of daily living.

Overall, 61.5% of all these patients had achieved tight blood glucose control. And a little more than half of them had done so by relying on drugs that can dramatically lower blood sugar levels. These include insulin and sulfonylureas, a medication that prompts the pancreas to produce more insulin. Despite this aggressive treatment, the proportions of older diabetics in good and poor health did not significantly change during the 10-year study period, calling into question whether doctors are overtreating these patients to no real benefit.

Dr. Alan Garber, of the Baylor College of Medicine in Houston, said the study does call into question the use of insulin or sulfonylureas to treat diabetes in older adults, but does not necessarily invalidate the goal of tight blood sugar control.

People are encouraged to talk with their physicians for a better understanding of what the potential benefits and the risks of treatment are. There isn't one universal goal for everyone.

Source: Drugs.com, January 2015

Myths and Facts - How Medications Affect Older Adults

Older adults need to be especially vigilant about drug safety, according to the December issue of *Mayo Clinic Health Letter.* That's because older adults are more likely to be taking more than one medication at a time. Interactions between drugs can cause side effects that might not occur if a

drug were taken alone. And, physical changes in older adults can alter both the effectiveness of a medication and side effects, compared with what a younger adult might experience.

Consider these myths and facts:

Myth: If a drug works well at a certain dose, taking more will be better.
Fact: With many drugs, the benefit won't increase after a certain dose, but the risks will. For example, taking two acetaminophen (Tylenol) provides pain relief with minimal risk of side effects. Taking four acetaminophen pills doesn't improve pain relief and greatly increases the risk of harmful side effects and toxicity. Taking too high of a dose of some medications can be especially harmful in older adults. Liver and kidney functions can diminish over time and reduce the body's ability to process and eliminate a drug.

Myth: A drug taken at a certain dose for years cannot cause new side effects.
Fact: A drug taken without problems for years could be the cause of troubling new side effects in older adults. With increased age, body weight may change and digestion, circulation, and kidney and liver function may slow down. These changes can affect the processing, circulation and excretion of drugs and make the drug more or less effective than it was in the past. Adding new drugs, nonprescription medications, herbal or dietary supplements or alcohol could lead to interactions and possibly new side effects.

Myth: It's obvious when something is a side effect of a drug or a symptom of a disease or condition.
Fact: Side effects of certain drugs can be mistaken for diseases or conditions associated with aging or even for symptoms that are chalked up to "getting older". Side effects of certain drugs also can worsen symptoms of an existing disease or condition. Doctors and pharmacists can refer to lists of drugs that should be used with caution or avoided in older adults. But no list can account for every particular situation. Patients, doctors and pharmacists should always consider the possibility that any symptom or signs of "old age" such as weakness, drowsiness, confusion, anxiety or memory loss could be a drug side effect.

Source: Mayo Clinic, December 2014

Hospital Deaths Declining in Canada

New data shows that hospital deaths continue to decrease across the country. 2013–2014 data from the Canadian Institute for Health Information (CIHI) reveals that 57% of hospitals that meet the reportable threshold achieved a decrease in hospital deaths over the last five years.

For patients who die in Canadian hospitals, the six leading causes of death are stroke, heart failure, chronic obstructive pulmonary disease, pneumonia, sepsis and heart attack. Between 2009 and 2013, the leading causes of in-hospital deaths remained largely the same. Hospitals have made strides in reducing mortality related to heart attack (down 19%), sepsis (down 10%) and heart failure (down 5%).

CIHI's data shows that out of 83 reportable facilities, 47 in Canada (outside Quebec) have significantly improved over the last five years. Variations occur from region to region and across the country, but the trend suggests improvement in patient care.

Updated results for the indicator Hospital Deaths (also known as HSMR, for "hospital standardized mortality ratio") are available in CIHI's Your Health System web tool. The tool features a broad range of indicators measuring how health systems and the health of Canadians are faring across the country.

Source: Canadian Institute for Health Information, December 2014

Influenza and Sepsis: Signs of Severe Sepsis, Septic Shock

Sepsis can be a dangerous complication of almost any type of infection, including influenza, pneumonia and food poisoning; urinary tract infections; bloodstream infections from wounds; and abdominal infections. Symptoms include **a** high fever; inability to keep fluids down; rapid heartbeat; rapid, shallow breathing; lethargy and confusion. If sepsis is suspected, seek emergency care. Rapid intervention is critical.

Sepsis occurs when chemicals released into the bloodstream to fight an infection trigger inflammatory responses throughout the body. This inflammation can trigger a cascade of changes that can damage multiple organ systems, causing them to fail. The most common is with bacterial infections, but you can get sepsis from other types of bugs also.

The first step in treating is diagnosis. Cultures are taken from the blood and any other relevant parts of the body. Intravenous fluids are given, and antibiotics are usually started right away. If sepsis is severe, with rapid heart rate, rapid breathing and shortness of breath, and the initial fluid given doesn't prompt rapid improvement, patients are usually hospitalized.

Sepsis refers to signs of inflammation in the presence of a presumed infection. Severe sepsis means you have got that and signs of organ damage: lung injury, impaired kidney function, impaired liver function. Septic shock means you have all of those findings of severe sepsis, but now you have been given fluids, and there is still poor blood pressure, poor urine output, breathing troubles, and there are still ongoing signs of sepsis. Septic shock can be fatal. Among hospitalized patients, septic shock is associated with a 20 to 30% risk of death.

Anyone can develop sepsis. People on chemotherapy or other immune-suppressing drugs are at higher risk, as are the elderly and people with open wounds that could lead to infection. Often, immune-suppressed patients are given antibiotics preventively.

Source: Mayo Clinic, January 2015

Unhealthy Insulin Levels May Boost Breast Cancer Risk

After menopause, unhealthy insulin levels may predict breast cancer risk even more than excess weight, new research suggests. The new findings suggest "that it is metabolic health, and not

overweight, that is associated with increased risk of breast cancer in postmenopausal women," said study co-author Marc Gunter. He is an associate professor of cancer epidemiology and prevention at Imperial College London School of Public Health in England.

While high insulin levels often occur in overweight or obese women, some very heavy women have normal levels of the hormone, experts say. And some normal-weight females have metabolically unhealthy insulin levels.

To assess insulin's role in breast cancer risk, researchers studied more than 3,300 women without diabetes, 497 of whom developed breast cancer over eight years. They analyzed information on their weight, fasting insulin levels and insulin resistance, in which the body does not respond properly to insulin. Insulin helps the body use digested food for energy. A body's inability to produce insulin or use it properly leads to diabetes.

Overweight for the study was defined as a body mass index (BMI) of 25 or more. BMI is a calculation of body fat based on height and weight.

In the study, high fasting insulin levels doubled the risk of breast cancer, both for overweight and normal-weight women. In addition, women who were overweight and insulin-resistant had an 84% greater risk of breast cancer than overweight women who weren't insulin-resistant.

Other research has found that up to 10% of women at a healthy weight may have insulin problems. Gunter said more research is needed to explain the findings. Insulin can cause cells, including cancer cells, to grow, so that could be a factor. Other hormones related to insulin can also be higher in overweight women, and they could contribute to breast cancer risk.

Meanwhile, experts agree, the take-home point for women is to eat a healthy diet and to exercise regularly, so weight and insulin levels are more likely to stay normal.

The study was published January 15, 2015 in the journal *Cancer Research*.

Source: Drugs.com, January 2015

Life Satisfaction Could Lead to Higher Bone Density

Women who are satisfied with their lives have a higher bone density in the golden years, suffering less frequently from osteoporosis than those who are not, according to a new study at the University of Eastern Finland. Osteoporosis is a disease that can lead to bone fracture due to dwindling density, and post-menopausal women are the most at-risk.

Low levels of physical activity and smoking are commonly cited causes leading to osteoporosis, but psychological factors such as depression-related stress could be playing a larger role than previously thought. For example, long-term stress can lead people to smoke and deter them from getting enough exercise. Stress associated with depression can cause the metabolism to run afoul, which can have a detrimental effect on bone health.

In the study, the research team used data on 2,167 women from the Kuopio Osteoporosis Risk Factor and Prevention (OSTPRE) Study, which has been going on since 1989. Participants had undergone bone density measurements in 1999 and 1,147 of the women in the sample returned for follow-up measurements in 2009.

The research team assessed their life satisfaction with just four questions relating to their interests and ease of living, their happiness and their feelings of loneliness. Participants were divided into three groups based on whether their answers revealed they were satisfied, neutral or unsatisfied.

Overall, bone density had decreased by 4% after ten years, yet the difference between those who were satisfied and those who were not was as much as 52%, according to the study. Those who experienced deteriorating life satisfaction saw their bone density weaken by 85% compared to those for whom satisfaction with life increased.

The researchers, whose study was published in the journal Psychosomatic Medicine, say promoting good spirits and life satisfaction among the elderly is just as important as promoting healthy living.

Source: CTV News, January 2015

Mitral Valve Repair after a Heart Attack

Researchers with National Institutes of Health's (NIH) National Heart, Lung, and Blood Institute's Cardiothoracic Surgical Trials Network have determined that mitral valve repair may not offer a lot of health benefits for someone after a heart attack.

Doctors believe that fixing the mitral valve, a dual flap in the left side of the heart, will further prevent the chance of blood leaks and reduce the threat of heart failure or strokes. However, the two patient groups in the study showed similar rates of improvement in their heart's blood flow after 12 months of recovery.

About one million Americans suffer heart attacks each year. Of these, about half are left with functional damage to the mitral valve due to the injury and changes to the heart muscle. This damage can result in leaks, causing a backflow of blood accompanied by symptoms such as shortness of breath, abnormal fatigue, and excess blood in the lungs.

Doctors typically treat heart attack patients with this condition, called ischemic mitral regurgitation, by performing coronary artery bypass graft surgery, sometimes adding a procedure to repair the leaky mitral valve. The study is the first large-scale randomized clinical trial to assess whether adding the repair procedure leads to a measurable benefit for patients.

Routinely adding mitral valve repair to coronary artery bypass graft surgery for heart attack patients may not be warranted in patients with moderate mitral valve damage, according to the study. Patients treated with both procedures versus the bypass graft alone showed no

differences at one year in recovery from structural damage to the heart's left ventricle, nor in secondary measures such as heart failure, stroke, functional status or quality of life.

Source: Canadian Institutes of Health Research, December 2014 and National Institutes of Health, November 2014

Neck Artery Stents may not be Worthwhile

Placing stents in the neck arteries, to prop them open and help prevent strokes, may be too risky for older, sicker patients, a new study suggests. In fact, almost a third of Medicare patients who had stents placed in their neck (carotid) arteries died during an average of two years of follow-up.

"Death risks in older Medicare patients who underwent carotid artery stenting was very high," said lead researcher Dr. Soko Setoguchi-Iwata, an assistant professor of medicine at Harvard Medical School in Boston.

Placing a stent in a carotid artery is a way to prevent strokes caused by the narrowing of the artery. A stent is a tiny mesh tube that is placed into an artery to keep blood flowing, in this case to the brain. Although clinical trials have shown success with this procedure, this study looked at the technique in a real-world setting.

Previous studies have estimated that carotid artery stenting reduces the risk of stroke by 5% to 16% over five years. But this study suggests the real benefit is not as great. The high death rate may be due to these patients' advanced age and other medical conditions. Setoguchi-Iwata does not know how these death rates compare with similar patients who didn't have the procedure.

For the study, researchers collected data on more than 22,500 Medicare patients, average age 76, who had neck artery stenting between 2005 and 2009. Within 30 days after the procedure, almost 2% of the patients died, 3% suffered a stroke or mini-stroke, and 2.5% had a heart attack. Two years later, 32% of the patients died. The death rate was highest among those with symptoms, such as plaque in the artery (37%), and lowest among those without symptoms (28%). In addition, patients who were at least 80 years old and who did not have the surgery as an elective procedure were among those with the greatest risk of dying, the researchers found.

Patients need to have their risks evaluated before having this procedure, and that should include an evaluation of their risk for stroke and their overall medical condition.

The report was published online on January 12, 2015 in the journal *JAMA Neurology*.

Source: WebMD.com, January 2015

New Device for Rheumatoid Arthritis

Researchers are testing out a possible new treatment for rheumatoid arthritis that doesn’t require taking any pills. The device is surgically inserted into a patient’s neck, where it rests against a nerve. Patients turn the device on for three minutes each day using a magnet. It then

sends electrical impulses that reduce the number of immune cells that travel to joints, causing painful inflammation.

Monique Robroek, who could hardly move a year ago even with the strongest medicine available, was able to stop taking drugs a few weeks after starting treatment with the device. She says she is now pain-free. Robroek was one of 20 severely-affected sufferers who volunteered for a study of the device in Amsterdam. More than half saw a reduction in pain.

Paul-Peter Tak, Chairman of Clinical Immunology and Rheumatology at the Academic Medical Centre, part of the University of Amsterdam, says there seems to be an “immediate effect.” “It's very appealing to patients because they don't like to take medicines for 30 to 40 years of their lives,” he says.

Tak is the senior vice-president and head of Immuno-Inflammation research and development for GlaxoSmithKline, a British company that has invested billions in bioelectronics research like the implant. Bioelectronics are implantable devices that offer hope not just to arthritis patients, but also to those with inflammatory bowel disease, hypertension and diabetes, according to GlaxoSmithKline.

Still, experts urge caution due to the small number of patients in the Amsterdam study. They say the treatment, even if it works, would not likely be available for a decade. An estimated 300,000 Canadians suffer from rheumatoid arthritis, according to The Arthritis Society.

Source: CTVnews.ca, December 2014

Pursuing Pancreatic Cancer's Deadly Secret

A new lab study might help explain why pancreatic cancer is so deadly. "Patients with the earliest stage of pancreatic cancer have a survival rate of only 30%. This suggests that even in that very early stage of invasive cancer there are already cells that have spread to distant parts of the body," said study author Dr. Diane Simeone, director of the Pancreatic Cancer Center at the University of Michigan Comprehensive Cancer Center.

Using mice and tissue samples, researchers found that a gene known to be involved in nearly 90% of pancreatic cancers promotes cancer spread and growth. This ATDC gene plays an important role in how a tumor progresses from the preinvasive stage to invasive cancer and then to metastatic cancer, which means it has spread to other areas of the body.

The ATDC gene offers a potential target for new drugs to treat pancreatic cancer, the researchers said. By 2030, it's expected that pancreatic cancer will be the second leading cause of U.S. cancer deaths, they said. The researchers also said preliminary data suggests the ATDC gene may play a role in other cancers, including those of the bladder, ovaries, colon and lungs, as well as the blood cancer multiple myeloma.

Source: Drugs.com, January 2015

Seniors Still Given Potentially Dangerous Sedatives

Doctors continue to prescribe sedatives for seniors despite the significant risks they pose, a new study contends. The drugs in question are a class of medications called benzodiazepines. This class includes drugs such as Xanax, Valium and Ativan. As people get older, these drugs are known to put seniors at risk for confusion and falls. Yet, the researchers found that older folks are increasingly being prescribed these medications.

The analysis included national data from 2008. It showed that about 5% of Americans aged 18 to 80 (11.5 million people) were prescribed these drugs. Just under 3% of people between the ages of 18 and 35 were given these sedatives. But among those aged 65 to 80, nearly 9% were on the drugs.

Almost one-third of seniors given these sedatives stayed on them for at least four months, the researchers found. Long-term use may make the medications less effective. There's also a greater risk of dependence on the drugs with long-term use, according to the study authors.

"These prescribing patterns likely put a large number of older adults at unnecessary risk of falls, motor vehicle accidents and confusion," said study senior author Dr. Mark Olfson, a professor of psychiatry at Columbia University Medical Center and a research psychiatrist at the New York State Psychiatric Institute.

The researchers hope the study is a wake-up call for health care professionals. They suggest that health care professionals teach older adults who have trouble sleeping or experience anxiety about non-drug options for their problems. "Examples include increasing light-to-moderate exercise, promoting supportive relationships, ensuring adequate exposure to natural light, avoiding stimulants such as caffeine late in the day, avoiding naps, establishing a regular, relaxing bedtime routine, and accepting that quality of sleep naturally tends to decline as we age."

The study was published online December 17, 2014 in the journal *JAMA Psychiatry.*

Source: Drugs.com, December 2014

Slipping, Sliding and Snow Shoveling Season

Shoveling snow can provide good exercise when done correctly but can prove harmful if people try to take on more than they can handle or use faulty techniques. Here are some tips from physicians at Mayo Clinic Health System for injury-free snow shoveling:

- If you're inactive and have a history of heart trouble, talk to your doctor. Stop if you feel tightness in your chest. Heart attacks increase significantly in the winter months, particularly while people are shoveling snow.
- Drink plenty of water. Dehydration is just as possible when you exert yourself in cold winter months as it is in the summer.
- Dress warmly and in layers so you can remove a layer as needed.

- Do not shovel while eating or smoking. Avoid caffeine or nicotine before you begin shoveling as they may place extra stress on the heart.
- Take it slow. Pace yourself and take breaks.
- Keep a cell phone handy in case of emergency.
- Don't pick up too much snow at once. If necessary, just push the snow as you shovel.
- Protect your back. Bend from the knees, not your back. Lift with your legs bent, stand with your feet about hip width for balance and keep the shovel close to your body. Try not to twist. If you move the snow to one side move your feet to face the direction the snow will be going.
- Clear snow as soon as it stops falling. Freshly fallen snow is lighter.
- Most importantly – listen to your body. Stop if you feel tired.

Source: Mayo Clinic, January 2015

Where there's Smoke, there's Respiratory Risk

Millions of Canadians will enjoy the ambience and warmth of a wood burning stove or fireplace this winter, but experts say that both doctors and the public should be more aware of the associated potential health hazard. Tiny particulates, produced from combusting wood are dangerous, especially for people with pre-existing respiratory issues, says Dr. Kenneth Chapman President of the Canadian Network for Respiratory Care.

"It's the same thing that's harmful about tobacco smoke, minus the nicotine. There are volatile gases that you don't want to inhale and can irritate the airway and lungs," says Chapman, a professor of medicine at the University of Toronto.

Tobacco has traditionally been pinned as the leading cause of chronic obstructive pulmonary disease (COPD) in North America. But while tobacco use is decreasing, COPD has been rising for three years. In 2013, 4.3% of Canadian adults over the age of 35 were diagnosed with COPD, an increase of 0.2% from 2011. Chapman says one possible contributing factor to the increase is exposure to wood smoke.

According to Statistics Canada, 12% of Canadian households use wood as heating in their homes; 4% rely on it as the primary source of heating. Health Canada recommends a number of safety tips including cleaning chimneys, using dampers properly and installing an "advance combustion" insert in wood burning stoves.

However, the adverse effects of wood smoke don't come solely from direct indoor exposure; outdoor pollution is also to blame. A 2012 report by the Canadian Council of Ministers of the Environment (CCME) estimated that 104 kilotonnes of fine particulate matter was emitted to the atmosphere in Canada from residential wood combustion in 2010; 44% of these emissions came from Quebec.

The 2012 Canadian Council report recommends that wood burning appliances meet Canadian Standards Association rules for emissions, output and efficiency, but compliance is voluntary unless regulated provincially or municipally. As of 2012, five provinces had legislation regulating

wood burning appliances and seven provinces offered incentives for upgrading to more efficient appliances.

Short, sporadic exposures such as a campfire or lighting a scented candle are not as serious, although they should be avoided by people with lung disease.

Wood smoke exposure is something Chapman says most Canadians and doctors are unaware of and could pay more attention to. Chapman says more research on the effects of wood smoke, and the number of patients affected is also needed.

The results of a large-scale, seven-year Australian study published in the *BMJ* in 2013, indicated that reducing the amount of wood smoke pollution was associated with reduced all-cause, cardiovascular and respiratory mortality. According to the World Health Organization, COPD is the third leading cause of death worldwide.

Jason Nickerson, a clinical scientist at the Bruyère Research Institute in Ottawa has seen these effects first hand as part of his work in programs concerning non-communicable respiratory diseases in low-income countries. He says that if nothing changes, COPD levels in these countries will significantly increase due to indoor pollution caused by cooking stoves.

Source: Canadian Medical Association Journal (CMAJ), January 2015

Section 2 – Drug Information and Update

Quit-smoking Drug Suspected in Suicides

Champix is suspected of playing a major role in the deaths of 44 patients (30 by suicide) since the popular stop-smoking drug was approved in Canada in 2007, a Vancouver Sun investigation has found. The Pfizer drug has also been linked to more than 1,300 incidents of suicide attempts or thoughts, depression, and aggression/anger across the country in the past seven years.

The drug is the most popular of those offered by British Columbia's quit smoking program, which traditionally sees a jump in participation every January due to new year's resolutions to quit smoking.

Numbers on the deaths and other side-effects come from a Health Canada database where doctors, pharmacists and drug companies report bad side-effects experienced by patients taking pharmaceuticals. But Health Canada admits that side-effects are under-reported, and experts say the database could represent as little as 1% of the patients who suffer complications.

Even the incomplete numbers are a concern. When someone taking an anti-depressant attempts suicide, it's initially not clear whether that's caused by the pre-existing depression or the drug; but in the case of Champix, people are taking the drug to stop smoking, not for a mental health condition.

The Sun downloaded data from the Health Canada site for Champix and Zyban, the two drugs covered by B.C.'s Pharmacare as part of the province's Smoking Cessation program. Champix is the subject of a class-action lawsuit, which more than 200 Canadians have joined, alleging psychiatric side-effects.

In recent years, Champix has been slapped with the toughest safety warnings in the U.S. and Canada, and France stopped covering the drug through its public Pharmacare system. In October, American consumer and health groups submitted a petition demanding the U.S. government further increase the warnings about Champix in relation to "suicidal behaviour, aggression/violence, psychosis, and depression".

In November, the Drug and Poison Information Centre warned there were nearly 100 Zyban overdoses in B.C. in 2013, including 47 cases of suspected suicide attempts. The Health Canada database showed 27 deaths and the death of one fetus with Zyban as the suspected cause, since the drug was approved in Canada in 1998.

In a statement to The Sun, manufacturer Pfizer said adverse reaction reports, such as those provided to Health Canada, do not necessarily prove the side-effect was caused by a drug because they are voluntarily submitted and may not contain patients' full medical history. Pfizer also said quitting smoking can lead to depression, agitation or recurrence of a pre-existing mental health issue, regardless of whether the patient is taking a stop-smoking drug.

The federal government oversees drug approvals in Canada. Nationally, there were 625,000 prescriptions filled for Champix and 38,000 for Zyban in 2013, according to IMS Brogan, an international company that collects health data. Health Canada's database shows 129 reports of adverse reactions to Champix and 13 to Zyban in 2013.

The Sun's final analysis found that in the last seven years in Canada, in addition to the 44 deaths, there were about 350 reports of Champix causing suicide attempts or suicidal ideation, 30 reports of homicidal ideation, and 64 of amnesia. There were also approximately 600 reports of Champix causing depression, 230 of aggression, 180 of anger, and 150 of mental side-effects, including hallucinations and psychotic disorders.

Reports to Health Canada may improve in 2015, though, with the passage of a new federal bill last November that requires hospitals to report when patients suffer adverse reactions to drugs. The bill is called Vanessa's law, after a 15-year-old Ontario girl who collapsed from a heart attack while taking a prescription drug that had been of concern in the U.S.

Law firms in Vancouver, Calgary, Toronto and Montreal are collaborating on the class-action lawsuit claiming Pfizer did not warn patients about the drug's risks, including suicide, suicidal thoughts and depression. More than 200 Canadians have joined the suit, said Doug Lennox, a lawyer for the plaintiffs.

In response to the lawsuit, Pfizer Canada has said it stands by Champix and that it has provided accurate information about the drug's safety. Pfizer, though, paid nearly $300 million to settle similar lawsuits with 2,500 U.S. patients in recent years. Lennox said it is a frustrating trend that Canadians often get delayed and poorer court settlements compared with our American neighbours.

The lawsuit is open to anyone who took Champix between 2007, when Canada approved it, and 2010, when the toughest pharmaceutical warning, called a black box, was applied. Champix's black box warning is unusual, Lennox said. A typical pharmaceutical warning tells patients to phone a doctor when they experience side-effects, but that's not the case for Champix because it can mess with how a person thinks. Instead, it says patients should ask their social circle to watch for any mental changes: "You are encouraged to inform friends and family of your quit (smoking) attempt, which includes treatment with Champix, and ask for their support and help in monitoring for potential psychiatric symptoms," the warning says.

A 2013 UBC-led study found that 66% of pharmaceutical sales representatives failed to tell Vancouver doctors about common or serious side-effects in their drugs. And the international study, published in the Journal of Internal Medicine, also found the threat of serious harm or death was disclosed to Vancouver doctors in only 5% of pitches for drugs that carried such a warning.

In Canada, Champix is reimbursed by government pharmacy programs in the Northwest Territories, British Columbia, Alberta, Saskatchewan, Manitoba, Ontario and Quebec.

Source: The Vancouver Sun, January 2015

Clarithromycin and Statin Mix

The combination of the common antibiotic clarithromycin with some statins increases the risk of adverse events, which may require hospital admission for older people, according to a new study published in *CMAJ (Canadian Medical Association Journal)*. Statins, used to lower cholesterol, are one of the most widely prescribed drugs, with projections estimated at more than 1 billion people around the globe. Although uncommon, severe adverse events can occur in some patients when certain medications interact with the statin and affect the way it is metabolized.

There are some types of statins, namely rosuvastatin and pravastatin, which are metabolized differently than other types of statins. Traditional thinking is that the metabolism of this group of statins is not affected by some other medications; however, new biological studies suggest this may not be the case.

To study this issue further, researchers compared the use of two common antibiotics, clarithromycin and azithromycin, in older adults who were also taking rosuvastatin, pravastatin or fluvastatin to determine if adverse events occurred. They looked at data from the Institute for Clinical Evaluative Sciences on 104,041 statin users aged 66 or over in Ontario, Canada, who also had a prescription for one of the antibiotics (51,523 clarithromycin and 52,518 azithromycin).

Co-prescription of clarithromycin and a statin was associated with a modest increase in the number of deaths and hospital admissions for acute kidney injury or high potassium levels. The authors suggest that these adverse events may reflect statin toxicity among older adults.

Previous studies have indicated that these types of statins are safer than others to take with clarithromycin.

Source: Canadian Medical Association Journal, January 2015

Daily Aspirin Used Inappropriately

Many Americans are likely using daily low-dose aspirin inappropriately in the hopes of preventing a first-time heart attack or stroke, a new study suggests. Researchers found that of nearly 69,000 U.S. adults prescribed aspirin long-term, about 12% probably should not have been. That is because their odds of suffering a heart attack or stroke were not high enough to outweigh the risks of daily aspirin use, said Dr. Ravi Hira, the lead researcher on the study and a cardiologist at Baylor College of Medicine in Houston.

Experts have long known that for people who have had a heart attack or stroke, a daily low-dose aspirin can cut the risk of reoccurrence. However, when used to prevent a first-time heart attack or stroke, what doctors call “primary prevention”, the benefits of aspirin therapy are smaller, and for many people may not justify the downsides.

Aspirin can cause serious gastrointestinal bleeding or hemorrhagic stroke (bleeding in the brain). People sometimes dismiss the bleeding risks, partly because aspirin is so familiar and readily available.

The study was reported January 12, 2015 online in the *Journal of the American College of Cardiology*. The results are based on medical records for more than 68,800 patients at 119 cardiology practices across the United States. The group included people with high blood pressure who had not yet developed heart disease.

Overall, Hira's team found, almost 12% of patients seemed to be prescribed aspirin unnecessarily; their risks of heart trouble or stroke were not high enough to justify the risks of long-term aspirin use. For this study, “high enough” was defined as having at least a 6% chance of suffering a heart attack or stroke over the next decade.

The American Heart Association and the U.S. Preventive Services Task Force say doctors should consider patients' risk factors for cardiovascular problems, including age, diabetes, high blood pressure, high cholesterol and smoking, and weigh those against the risk of bleeding. For instance, people with a history of stomach ulcer have up to three times the risk of gastrointestinal bleeding as people who have never had an ulcer, according to the task force.

Women and younger patients were more likely than men and seniors to be using aspirin inappropriately, the study found. The overall rate of misuse may be even higher than noted since many people may take daily aspirin without a doctor's recommendation.

The U.S. Food and Drug Administration advises people against taking aspirin to prevent a first-time heart attack or stroke. But the agency also said it cannot make blanket recommendations that apply to everyone. The important thing is to talk to your doctor before starting on low-dose aspirin, even if you think your odds of a heart attack or stroke are high.

Source: Drugs.com, January 2015

Flu Vaccine Not Effective

The flu vaccine seems effective in reducing the risk of flu by 23%, based on an early estimate from the U.S. among people going to the doctor for respiratory illness. Canadian and U.S. health officials have said the most common type of flu circulating this season is H3N2, which is not well-matched with the seasonal flu vaccine.

In January, the U.S. Centers for Disease Control and Prevention released an estimate based on 2,321 American children and adults who got the flu vaccine between November and January. The CDC said vaccinated people had a 23% lower chance of getting the flu. The poor effectiveness likely reflects the fact that more than two-thirds of circulating flu viruses are genetically different from seasonal flu vaccines, the CDC said in its Morbidity and Mortality Weekly Report. The effectiveness was highest among children aged six months to 17 at 26%. Effectiveness fell to 12% among people aged 18 to 49 and 14% for those aged 50 and older.

In Canada, the flu vaccine could be working even more poorly, with “little or no protection”. "About 98% of the viruses are mismatched that have been characterized in Canada, whereas in

the U.S. it is closer to about 68%, or about two-thirds are mismatched." said Dr. Danuta Skowronski of the British Columbia Centre for Disease Control.

There are other ways to protect yourself besides the flu shot, such as hand washing and staying home when sick, said Dr. Michael Gardam, director of infection prevention and control at Toronto's University Health Network.

Despite the poor match, the CDC concluded flu vaccines are the best tool for prevention currently available. The researchers said there could also be a change in viruses circulating late in the season when the vaccine could help more.

Since the CDC started doing flu vaccine studies in 2004, overall effectiveness has ranged from 10% to 60%. Vaccine effectiveness studies estimate how protective a vaccine is by comparing the odds of being vaccinated among those with positive and negative flu test results.

Source: CBC News, January 2015

New Antibiotic May Combat Resistant Bacteria

Laboratory researchers say they have discovered a new antibiotic that could prove valuable in fighting disease-causing bacteria that no longer respond to older, more frequently used drugs. The new antibiotic, teixobactin, has proven effective against a number of bacterial infections that have developed resistance to existing antibiotic drugs, researchers report January 7, 2015 in the journal *Nature*.

Researchers have used teixobactin to cure lab mice of MRSA (methicillin-resistant *Staphylococcus aureus*), a bacterial infection that sickens 80,000 Americans and kills 11,000 every year, according to the U.S. Centers for Disease Control and Prevention (CDC). The new antibiotic also worked against the bacteria that cause pneumococcal pneumonia.

Cell culture tests also showed that the new drug effectively killed off drug-resistant strains of tuberculosis, anthrax and *Clostridium difficile*, a bacteria that causes life-threatening diarrhea and is associated with 250,000 infections and 14,000 deaths in the United States each year, according to the CDC.

"My estimate is that we will probably be in clinical trials three years from now," said the study's senior author, Kim Lewis, director of the Antimicrobial Discovery Center at Northeastern University in Boston. Lewis said researchers are working to refine the new antibiotic and make it more effective for use in humans.

Many dangerous forms of bacteria have developed resistance to antibiotics, rendering useless many first-line and even second-line antibiotic treatments. Doctors must use less effective antibiotics that are more toxic and more expensive, increasing an infected person's chances of death. The CDC estimates that more than 2 million people are sickened every year by antibiotic-resistant infections.

Teixobactin kills bacteria by causing their cell walls to break down, similar to an existing antibiotic called vancomycin, the researchers said. It also appears to attack many other growth processes at the same time, giving the researchers hope that bacteria will be unable to quickly develop resistance to the antibiotic.

The authors note that it took 30 years for resistance to vancomycin to appear, and they said it will probably take even longer for genetic resistance to teixobactin to emerge.

Source: Drugs.com, January 2015

Vitamin D May Boost Colon Cancer Survival

Higher vitamin D levels in patients with advanced colon cancer appear to improve response to chemotherapy and targeted anti-cancer drugs, researchers say. Those patients survived one-third longer than patients with low levels of vitamin D, an average 32.6 months, compared with 24.5 months, the researchers found.

The report, presented in January at the Gastrointestinal Cancers Symposium in San Francisco, adds more weight to suspicions that vitamin D might be a valuable cancer-fighting supplement. However, colon cancer patients shouldn't try to boost vitamin D levels beyond the normal range, one expert said.

The study only found an association between vitamin D levels and colon cancer survival rates. It did not prove cause and effect.

Researchers for years have investigated vitamin D as a potential anti-cancer tool, but none of the findings have been strong enough to warrant a recommendation, said Dr. Len Lichtenfeld, deputy chief medical officer for the American Cancer Society. "Everyone comes to the same conclusion, yes, there may be some benefit, but we really need to study it carefully so we can be certain there aren't other factors that make vitamin D look better than it is," Lichtenfeld said. "These findings are interesting, and show that vitamin D may have a role in improving outcomes in cancer care."

In this study, researchers measured blood levels of vitamin D in 1,043 patients enrolled in a phase 3 clinical trial comparing three first-line treatments for newly diagnosed, advanced colon cancer. All of the treatments involved chemotherapy combined with the targeted anti-cancer drugs bevacizumab and/or cetuximab.

Vitamin D is called the "sunshine vitamin" because human bodies produce it when the sun's ultraviolet rays strike the skin. It promotes the intestines' ability to absorb calcium and other important minerals, and is essential for maintaining strong, healthy bones. But vitamin D also influences cellular function in ways that could be beneficial in treating cancer. The study showed it appears to reduce cell growth, promote the death of diseased cells, and inhibit the formation of new blood vessels to feed cancerous tumors.

The study authors found that certain types of cancer patients tended to have lower vitamin D levels. These included people whose blood specimens were drawn in the winter and spring months, people who live in the northern and northeastern states, older adults, blacks, overweight or obese people, and those who had lower physical activity and were in worse physical condition.

The patients were divided into five groups based on vitamin D levels, ranging from low to high. After adjusting for prognosis and healthy behaviors, the researchers found that patients in the group with the highest levels of vitamin D lived about eight months longer on average than those in the group with the lowest levels.

It also took longer for cancer to progress in people with higher vitamin D levels, an average 12.2 months compared with about 10 months in the group with the lowest. No significant differences were seen with regard to the type of therapy the patients received.

This increase in progression-free survival is the most compelling evidence indicating that vitamin D makes a difference in colon cancer, said Dr. Smitha Krishnamurthi, an associate professor of hematology and oncology at Case Western Reserve University School of Medicine in Cleveland. Based on this new study, Krishnamurthi said she would emphasize the importance of vitamin D for patients with colon cancer.

Source: Drugs.com, January 2015

Aricept - New Health Warnings

New warnings have been added to the prescribing information for the drug Aricept (donepezil) advising of the risk of two rare but potentially serious conditions: muscle breakdown (rhabdomyolysis) and a neurological disorder called neuroleptic malignant syndrome (NMS).

Donepezil is a prescription drug used to treat the symptoms of mild, moderate and severe dementia related to Alzheimer's disease. It is available under the brand names Aricept and Aricept RDT (Rapidly Disintegrating Tablet), as well as generic equivalents.

Rhabdomyolysis is a rare condition involving the breakdown of muscle tissue. Rhabdomyolysis can cause serious and sometimes fatal abnormal heart rhythms, kidney damage and kidney failure, but is generally treatable if recognized promptly. NMS is a very rare life-threatening disorder characterized by a chemical imbalance that affects the nervous, muscular and cardiovascular systems. The muscular effects of NMS can sometimes lead to rhabdomyolysis.

The new warnings are the result of a Health Canada safety review that examined Canadian and international case reports and other data. Rhabdomyolysis and NMS were reported to occur independently in association with donepezil use; however rhabdomyolysis may be the result of complications of NMS. Rhabdomyolysis was most often reported to occur when donepezil therapy was started or the dose increased.

The prescribing information (product monograph) for Aricept and Aricept RDT has been updated with this important safety information. Manufacturers of generic donepezil products will also update their product information. In addition, Health Canada has published a Summary Safety Review with more information on its review.

Before prescribing donepezil, health professionals should assess patients for risk factors for rhabdomyolysis such as: muscular disorders, uncontrolled hypothyroidism, liver or kidney damage, or if the patient is taking other medications known to cause rhabdomyolysis, including: statins (used to lower cholesterol), antipsychotics, and certain types of antidepressants known as SSRIs and SNRIs (selective serotonin reuptake inhibitors and serotonin norepinephrine reuptake inhibitors).

If symptoms of rhabdomyolysis or NMS are noticed, donepezil should be stopped immediately and a doctor or a pharmacist should be contacted right away. Symptoms of rhabdomyolysis include a combination of fever, muscle or joint pain, weakness, nausea, and dark (tea-like) urine. Symptoms of NMS include high fever, muscle stiffness or rigidity, mental changes including delirium and agitation, and irregular heartbeat and pulse.

Source: Government of Canada, January 2015

New Injectable Weight-loss Drug - Saxenda

Saxenda is a new injectable medication for obesity that has been submitted to Health Canada for approval and won approval in the United States from the Food and Drug Administration in December.

Given the checkered history of weight-loss medications, doctors and patients are skeptical about another “cure.” Previous obesity drugs basically revved up your metabolic rate leading to weight loss, but with toxic side effects, including high blood pressure, palpitations and even death.

This new injectable medication looks promising. The drug is manufactured by Novo Nordisk, the pharmaceutical giant based in Denmark. The chemistry of the new drug, called liraglutide, also known as a GLP-1 agonist, may be a game-changer. Since there are receptors for GLP-1 everywhere, the drug works throughout the body. (Doctors already know Victoza, a low-dose form of this drug for diabetes.)

This widespread combination of effects is powerful. The medication wakes up and protects the insulin-producing cells in the pancreas, which reduce blood sugar. It speaks to the brain directly, speeding up food satisfaction. And it lets food linger in the gut, as if it’s forcing you to eat slowly which also leads to the most common side effects, nausea and constipation.

The company didn’t originally synthesize the drug in a lab. The original chemical comes from the saliva of the Gila monster, a venomous lizard native to the deserts of the Southwestern United States.

The company is not just targeting diabetic patients, but also obese patients without diabetes, and, most amazingly, pre-diabetic patients. That is revolutionary. In Canada there are about three million people with diabetes, and almost six million with pre-diabetes (people with higher-than-normal levels of blood sugar). This means that you don't have to wait until you get diabetes to take this drug. This much-needed revolution in health care may usher in the era of preventing diabetes in the first place.

On average, one can expect to lose about 6 to 11% of your body weight, according to a study published in The International Journal of Obesity, which involved 3,500 patients globally. As good as the medication may be, however, a single drug won't be the answer.

Novo Nordisk is still seeking permission to release Saxenda in Canada, Brazil and the European Union.

Source: The Globe and Mail, January 2015

Section 3 – National and Provincial Issues

PROVINCIAL ISSUES

Ontario - Enhancing Patient Care and Pharmacy Safety

Ontario's Bill 21, the *Safeguarding Health Care Integrity Act, 2014*, has passed third reading in the legislature. Bill 21 strengthens the safety of drugs that are provided in the province's hospitals and further enhances patient care. The government is following through on its commitment to implement recommendations contained in Dr. Jake Thiessen's report, "A Review of the Oncology Under-Dosing Incident," which was publicly released in August 2013. Dr. Thiessen was appointed by the government to determine the cause of the under-dosing of chemotherapy drugs at four Ontario hospitals, and to provide recommendations to prevent future incidents.

This new legislation implements recommendation 12 of Dr. Thiessen's report by making amendments to the *Drug and Pharmacies Regulation Act* in order to give the Ontario College of Pharmacists the authority to inspect and license hospital pharmacies.

Specifically, the government's legislation:

- Provides the Ontario College of Pharmacists with the authority to license and inspect pharmacies within public and private hospitals, in the same manner it currently licenses and inspects community pharmacies;
- Provides the College with the ability to enforce licensing requirements with regard to hospital pharmacies;
- Allows the College to make regulations to establish the requirements and standards for licensing, operation and inspection of hospital pharmacies; and
- Provides government with the ability to extend the College's oversight to other institutional pharmacy locations in the future, as appropriate.

As a result of these changes, the Ontario College of Pharmacists will be able to conduct regular inspections of hospital pharmacies so they can monitor compliance with operational standards and licensing requirements. Other provinces including British Columbia, Newfoundland and Labrador, Prince Edward Island and New Brunswick require their pharmacy regulators to license and inspect hospital pharmacies.

The legislation also improves the health system's ability to quickly identify and respond to any future incidents that could affect patient care and safety. In particular, the legislation:

- Enables health regulatory colleges to more readily share information with:
    - Public health authorities as may be required for the purposes of administering the *Health Protection and Promotion Act*; and
    - Public hospitals, as well as with other prescribed persons, in relation to a college investigation of a regulated health professional employed by or who receives privileges from a public hospital.

- Requires entities such as hospitals and employers to report to health regulatory colleges where:
    - A regulated health professional has resigned or voluntarily relinquished or restricted his or her practice or privileges because of concerns regarding the professional's potential professional misconduct, incompetence or incapacity, or
    - Where the member's resignation or relinquishment occurs during the course of, or as a result of, an investigation undertaken into allegations of profession misconduct, incompetence or incapacity on the part of the professional.
- Allows the government to more quickly appoint a college supervisor, where the Minister of Health and Long-Term Care considers it to be appropriate or necessary, in order to address any serious concerns regarding the quality of a health regulatory college's governance and management.

Source: Ontario Ministry of Health and Long-Term Care, December 2014

Ontario - Ten-Point Plan for Saving and Improving Physician Service

The Ministry of Health and Long-Term Care will implement 10 changes to physician services payments. These include changes to fees and payments so that Ontarians are paying the right amount for the right services. Other specific initiatives included will enhance the quality of care offered, improving how the health care system works, and making sure every dollar spent on health care gets the best results.

Specific changes planned to the physician services payments include:

- Getting the best results - Currently a visit to a walk-in clinic on a weekend or holiday costs more than a visit to your own doctor. The fee for a walk-in visit on these occasions will become comparable to the fee for a visit to your doctor.
- Updating payments to specialists - Internal Medicine, Nephrology, Gastroenterology and Cardiology are specialists that currently benefit from a 50% premium payment on fees for assessing patients for certain diagnoses. These higher payments are no longer relevant, as these particular specialties are closer to the higher end on the physician income scale.
- Removing obsolete programs - All professionals, including doctors, have an obligation to remain current in the knowledge of their area of practice. No profession gets government funding to meet their obligation. The funding for doctors to attend courses and events that are considered part of their continuing medical education will be eliminated. Doctors who treat a roster of patients are paid a premium for accepting patients with complex health care needs. Doctors have also been paid a premium for accepting healthy patients on their roster, patients who they would have likely accepted anyway. This premium for accepting healthy patients is being eliminated.
- Prioritizing underserviced areas - Doctors who work in underserviced areas will benefit from income stabilization payments and doctors who work in over-serviced areas will no longer benefit from these payments. Only areas with a high need for physician services will get new Family Health Organizations and Family Health Teams.
- Improving payment models to better reflect current needs - The Hospital On Call Coverage program provides funding to ensure timely access to physician services for

hospital patients 24/7. A new funding model will be developed that better recognizes local patient and hospital needs. Until then:

  - Hospital On-Call Coverage funding will be frozen at the current level; and
  - Planned funding increases, which were not directly linked to improving patient care, will be eliminated.

  The ministry has made additional funding available to recognize the higher care needs of some patients on primary care physicians' rosters. Currently this funding is not structured to directly target the care of these complex patients. Until a new funding model is developed that more accurately reflects patient care complexity, this additional funding will not be applied.

- Payment reduction - The ministry will apply a 2.65% discount to all fee for service physician payments, effective February 1, 2015 and apply the reduction to non-fee-for-service payment contracts after the respective requirements for providing notice are met. Under this element of the plan, the ministry will work with the OMA on a savings methodology that results in a higher proportion of savings from higher paid specialties. The ministry will also be prepared to adjust the across-the-board rate reduction based on any agreed to savings initiatives with the OMA that result in comparable savings. Doctors will still be able to provide any and all services for their patients that they feel are required.
- Payment to doctors, by the numbers - The physician services budget is 25% of the total health budget and 10% of government spending. The average payments have been reduced since 2011/12 to an estimated $354,000 in 2013/14.

More than 400 doctors in Ontario bill over $1 million annually. On average, gross payments to doctors are now 61% more than in 2003.

	2003/04 (ICES)	2013/14 (MOH)	$ Increase (03/04 to 13/14)	% Increase (03/04 to 13/14)
Family Medicine	$189,000	$317,800	$128,800	68%
Specialists	$246,000	$381,500	$135,500	55%
Diagnostic Radiology	$398,527	$613,900	$215,373	54%
Ophthalmology	$413,232	$641,200	$227,968	55%
Nephrology	$446,981	$563,650	$116,669	26%
Cardiology	$371,874	$509,300	$137,426	37%
All Physicians	$220,000	$354,000	$134,000	61%

Source: Ontario Ministry of Health and Long-Term Care, December 2014

NATIONAL ISSUES

Alzheimer Awareness Month

The Minister of Health would like to draw attention to Alzheimer Awareness Month which takes place each year in January. Alzheimer's disease is the most common form of dementia in Canada. It is a progressive and irreversible disease. Sadly, there is no cure. The number of Canadians who are living with Alzheimer's disease and related dementia is expected to double by 2031.

While the main risk factor for Alzheimer's disease is age, it is also important to understand that Alzheimer's disease is not a normal part of aging. Younger people, in their 40s or 50s, have been diagnosed with the early onset form of the disease.

Many countries around the world are facing a similar situation. That is why the Government of Canada has joined its G7 partners in addressing this growing challenge. Together, they are committed to coordinate international efforts with an aim to find a cure or disease-modifying treatment for dementia by 2025.

This year, the Government will be working with the Alzheimer Society of Canada to launch Dementia Friends Canada, rolling it out in communities across the country. This public education program will help Canadians learn the facts about Alzheimer's disease and related dementia, and how it affects the people who live with those diseases. With this knowledge, they can become more aware of the small things they might do to help.

At the same time, more than 300 researchers across the country will forge ahead with their work through the newly established Canadian Consortium on Neurodegeneration in Aging (CCNA) to improve our understanding of dementia, how we can prevent it and how we can improve the quality of life of Canadians living with dementia and their caregivers.

Source: Public Health Agency of Canada, January 2015

Section 6 – Travel News

Chikungunya Virus Spiked in 2014

The number of Canadians who contracted a mosquito-borne virus that first appeared in the Caribbean just over a year ago has soared into the hundreds, and there are likely many more cases that have gone undiagnosed, according to the Public Health Agency of Canada. As of December 9, 2014, there were 320 confirmed cases and 159 probable cases diagnosed, by far the largest yearly number of chikungunya cases ever documented in this country.

Most provinces have at least one confirmed case, with the majority being in Ontario (165) and Quebec (114). Another 100 suspected cases were still being investigated at the end of 2014. “This surge in Canadian infections has been associated with the incursion of chikungunya virus into the Caribbean and the expansion of the virus in the Americas,” the agency said in a January report. Ongoing outbreaks in the Asia-Pacific region have also contributed to imported cases among Canadian travellers. Prior to 2014, between one and 20 cases of chikungunya would typically be confirmed in Canada each year.

The chikungunya virus was, until recently, mostly found across Africa, Asia, India and some Pacific islands. Two non-imported cases were reported in Saint-Martin in December 2013, marking the virus’s first appearance in the western hemisphere. Since then, local transmission of the virus has been detected in more than 40 countries in the Caribbean, Central and South America, Mexico and the United States.

There have not been any cases of locally transmitted chikungunya in Canada, likely due to the fact that the virus’s two main mosquito carriers are not found here. However, Canadians make about 2.5 million visits to Caribbean countries each year, and also travel in high numbers to chikungunya hotspots in the Asia-Pacific region.

Symptoms usually develop within three to seven days after a bite from an infected mosquito, starting with fever and joint pain. Pain in the joints typically starts in the hands and feet. Patients can also develop headaches, a rash, nausea and fatigue. Most symptoms disappear within days, while other symptoms can last for weeks or months. Severe complications affecting the eyes, brain and heart can also occur. Infectious disease specialist Dr. Neil Rau says chikungunya is worrisome because it can cause severe arthritis in normally healthy people.

There is no vaccine to protect against contracting the virus, and few treatment options beyond symptom management. This means travellers should take precautions to protect themselves against exposure to mosquitoes when travelling. Doctors should also be asking about travel history when patients turn up at their offices with symptoms such as fevers and joint pain and inflammation.

Source: CTV News, January 2015

Bank of Canada Cuts Key Interest Rate

Bank of Canada Governor Stephen Poloz moved to offset the negative economic impact of the oil price shock by unexpectedly lowering the central bank's overnight rate from 1% to ¾ % on January 21, 2015.

"Although there is considerable uncertainty around the outlook, the Bank is projecting" the economy "will slow to about 1.5%" in the first half of 2015, Poloz said in the statement. For 2015 as a whole, however, the bank predicts growth of 2.1%. Previously, the bank had expected growth of 2.4% this year.

The rate-reduction move, which had not been expected by economists, is meant to encourage borrowing to boost business activity to help the economy. The central bank has kept its key interest rate at 1% since September 2010. The decision to lower the rate even further reflects the dire impact that Poloz foresees from the sharp decline in oil prices, which have dropped by 55% since June.

Poloz said the Canadian economy had been showing signs of growth before oil prices dived. The bank noted lower petroleum costs will have a different impact in different sections of the country. Economists have said the Ontario economy should pick up as a result of the oil-price shift while oil-producing provinces such as Alberta and Newfoundland and Labrador will see slowing growth.

The federal government has postponed its March budget until at least April to try to get a better idea of how the oil price shift will change its fiscal picture and how the economy will be impacted.

The Toronto stock market was sharply higher amid the surprise rate cut by the Bank of Canada, and increased confidence about what the European Central Bank may deliver in the form of another round of economic stimulus on Thursday. But the Canadian dollar fell 1.12 cents US to 81.48 cents US after the bank cuts its key rate

Source: thestar.com, January 2015