

Adult Immunization

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Why we need to change the conversation around vaccines, for the health of all Canadians.

Canadians, by and large, are extremely healthy. Across the developed world, life expectancies have been steadily increasing over the last century as infant mortality and the incidence of serious outbreaks of infectious disease have dropped. Among the many factors that have enabled this blessing of good public health, vaccination is second only to access to clean water in terms of impact.

Unfortunately, Canadians have become complacent about vaccination, particularly those recommended for adults rather than children. While the lack of a national vaccine registry makes it difficult to know exactly how many Canadians have received their recommended vaccinations, the National Immunization Coverage Survey by the Public Health Agency of Canada shows that vaccination rates in adults fall well below targets across the board. “We have a mentality that vaccines are for kids only,” says Dr.

“People aren’t getting vaccines for a lot of reasons. But let me tell you, you wouldn’t want polio to come back. I was just a kid then, but boy was that scary.”

Susan Bowles, Chair of Immunize Canada. “In reality, vaccines are for everybody. The vaccines you receive as a child are very important, but the vaccines you receive as an adult are also vital.”

Much of this complacency can be attributed, ironically, to our good national health itself. A hundred years ago, the leading cause of death worldwide was infectious disease. Now, thanks largely to vaccination, infectious disease accounts for less than five percent of domestic deaths, according to the Canadian Public Health Association. That makes it all too easy to overlook the potential dangers. “Immunization programs have been a victim of their own success,” says Dr. Bowles. “We now have several generations of adults who didn’t live through polio outbreaks or diphtheria outbreaks. When vaccine programs are

very successful and significantly combat or eradicate diseases, people don’t know what those outbreaks are like, and so the risks of the diseases are minimized in their minds and the risks of potential vaccine side effects are maximized.”

But, talking to experts and doctors from across the many disciplines that vaccines touch, one thing is clear: Immunization, particularly among adults, is as important an issue now as ever.

Herpes zoster (shingles), for example, is a painful condition with potentially severe complications that will affect 1 in 3 Canadians over the age of 60, and it is vaccine-preventable. And yet, very few Canadians receive the vaccine. Both Elaine Gareau of Eastern Ontario and her husband Larry have lived through shingles episodes, with Elaine’s case being par-

ticularly severe and resulting in postherpetic neuralgia that causes her substantial pain to this day. Elaine was unvaccinated because, though the shingles vaccine is approved and recommended nationally, it remains unfunded by provincial and territorial immunization programs.

Ambivalence about vaccines is extremely hazardous, and as we grow more complacent in our good health, we are at ever greater risk. Larry Gareau sums it up very succinctly: “People aren’t getting vaccines for a lot of reasons. But let me tell you, you wouldn’t want polio to come back. I was just a kid then, but boy was that scary.”

With millions of adult Canadians failing to get even the widely-available and effective flu shot, vaccine-preventable diseases remain a danger to us all. We need to do a better job, as a nation, to ensure that everyone is aware of their immunization options and empowered to make the most of them. ■

By D.F. McCourt

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Senior Publisher: **Joyce McCaffrey** Managing Director: **Martin Kocandrle** Production Manager: **Sonja Draskovic** Lead Designer: **Matthew Senra**

Designers: **Scott Dixon, Andrés Esis** Contributors: **Immunize Canada, D.F. McCourt** Cover Photo: **Elif Rey** Send all inquiries to **ca.editorial@mediaplanet.com**

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Vaccines Aren't Just For Children

The Wide Range Of Infectious Diseases Canadian Adults Aren't Vaccinating Themselves Against



Dr. Shelly McNeil
Vice Chair,
Immunize Canada

We Canadians have historically been very good at ensuring that our children receive their recommended immunizations, but we do quite a bit worse when it comes to vaccines recommended for adults. It's important for all Canadians to know that the responsibility for immunization does not begin and end with children.

A large part of the problem simply comes down to awareness. "Most people, even if they understand that there are some vaccines adults are supposed to get, don't really know which ones they are," says Dr. Shelly McNeil, Vice Chair of Immunize Canada. "They don't know if they are personally at risk. They don't know if they are supposed to get the vaccine."

Looking beyond tetanus and the flu

Most Canadians are aware of the annual influenza vaccine and may know that they are supposed to get

periodic tetanus boosters but, for too many, their knowledge of adult vaccines ends there. In truth, there are a wide range of infectious diseases for which adults have access to immunization, and for which vaccination is recommended by the National Advisory Committee on Immunization (NACI).

Children in Canada receive a vaccination against acellular pertussis (whooping cough) as part of their regular vaccine program, but immunity wanes over time and all adults are recommended to receive a second booster, yet only about seven percent do. Similarly, adults can and should be vaccinated against pneumococcal disease (the major cause of pneumonia), hepatitis A, and herpes zoster (shingles), depending on their age. Unfortunately, too few adults are getting these recommended immunizations. For adults born after hepatitis B vaccination, measles/mumps/rubella (MMR) vaccination, and human papillomavirus (HPV) vaccination became standard for children, you can add those to the list as well.

Taking HPV as an example, despite the fact that it is dangerous and ubiquitous, causing almost all cases of cervical cancer, only about 12 percent of Canadians over the age of 20 have received immunization. "The HPV vaccine is routinely given to school age children, and many provinces are expanding that to include boys," says Dr. Susan Bowles, Chair of Immunize Canada. "But, for all men and women at ongoing risk of exposure, it's something you definitely want to consider."

Ask your doctor, nurse, pharmacist or local public health unit about your immunization status, and keep a record of your immunizations.

Awareness and access

The two big challenges in working towards a more thoroughly immunized Canada are public education and access. "People don't want to take time out of their day to make an appointment to go get their vaccine, and they may not even be aware they need a vaccine," says Dr. Bowles. "Family doctors are very busy and, if they are seeing a patient for an acute condition, the vaccine conversation may not even come up."

One big step towards making vaccination programs more visible and accessible is the move towards giving vaccines directly in pharmacies, an initiative that has already shown success for flu vaccine compliance in several provinces. "I think that over the next five to ten years we are going to see an increase in the number of vaccines that are available at pharmacies," says Dr. Bowles.

Whether they get their shot at a pharmacy, a clinic, or their family doctor's office, however, all Canadian adults should be speaking to their physician about the range of adult vaccinations available to and recommended for them. ■

By D.F. McCourt

Adult Immunization: Is Your Record Up To Date?

Vaccines	Who should receive it?
Tetanus, Diphtheria	Everyone, every 10 years
HPV	Females and males 9–26 years (may be administered to females or males 27 years and older at ongoing risk of exposure)
Pertussis (Whooping Cough)	Everyone, once in adulthood
Influenza	Annually for people at high risk of complications from influenza and anyone who wants protection from influenza
Pneumococcal	Everyone 65 and older, immunocompetent people less than 65 in long-term care facilities, and people with specific medical conditions
Hepatitis A, Hepatitis B	People with medical, occupational or lifestyle risks and anyone who wants protection from hepatitis A or B
Herpes Zoster	People 60 and older (may be administered to people 50 years and older)
Meningococcal	People with specific medical conditions and people living in communal residences, including students and military personnel
Measles, Mumps, Rubella (German Measles), Varicella (Chickenpox)	People who have not had the vaccine or the disease
Travel Vaccines	Varies by destination – consult a travel health clinic, your health care provider, local public health office or www.travelhealth.gc.ca



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How Canadians Are Paying The Price For Incomplete Vaccine Funding



After living through separate shingles episodes, Elaine and Larry Gareau share their story and why increasing awareness of recommended vaccines will lead to better health outcomes for Canadians. Photo: Elif Rey

There are a wide variety of vaccines available to Canadians. Of course not everyone needs to receive every vaccine, which is why the National Advisory Committee on Immunization (NACI) has created their recommendations outlining which vaccines are recommended for people in certain high-risk groups.

Though these recommendations are in place nationwide, funding for vaccination takes place on a provincial level and, depending on where you live, recommended vaccines are not always funded by provincial public health agencies. “For the most part these vaccines are unfunded simply due to budgetary priorities,” explains Ian Culbert, Executive Director of the Canadian Public Health Association. “The ministers of health in each province have set budgets for vaccination programs and, as new vaccines get approved, they just don’t have the money to fund them.”

Without funding, vaccines fade from view

When people become aware of these unfunded ‘orphan’ vaccines, there is a reluctance to pay out of pocket for them, not only because of the cost, but because many feel that, if the vaccines are unfunded, they must not be important. “There is a belief that, if it’s good, governments will supply it,” says Dr. David Scheifele, Director of the Vaccine Evaluation Center at BC Children’s Hospital. “Unfortunately, we’re at a point where not everything that’s good is necessarily affordable by governments. It’s becoming necessary to pick and choose rather than fund everything.”

Perhaps the most prominent example of an orphan vaccine is the herpes zoster (shingles) vaccine, which is recom-

“There is a belief that, if it’s good, governments will supply it. Unfortunately, we’re at a point where not everything that’s good is necessarily affordable by governments. It’s becoming necessary to pick and choose rather than fund everything.”

mended for all Canadians over the age of 60. Thirty to forty percent of Canadians will experience a shingles episode in their old age and the condition can be extremely painful, resulting in permanent chronic pain and even blindness. And yet, despite the existence of an approved and recommended vaccine, it remains unfunded and most Canadians go unvaccinated.

The human cost of unfunded vaccines

Elaine and Larry Gareau, of Eastern Ontario, have direct experience with the fallout from a lack of shingles vaccination. Larry came down with the disease in the early 2000s and then, ten years later, Elaine also contracted it, at the age of 65. “I still thought I was invincible, even at my age,” Elaine says. “I thought that if I’d had chickenpox I would not get shingles, when in fact the opposite is true.”

Elaine’s case was particularly bad. The blisters spread across her body, causing excruciating pain that continues

to this day in the form of postherpetic neuralgia, more than a year after the episode. Elaine and Larry are fortunate enough to have been able to afford to get vaccinated following their episodes (for shingles is a disease that can reoccur, and post-facto vaccination reduces both the likelihood and severity), but for those on a fixed income that is not an easy option when the vaccine costs over \$200 out of pocket. “For many people over 65, who are living on Old Age Security (OAS), they would not have the money for the vaccine,” says Elaine. “They barely have the money to survive.”

In order to bridge the gap between what is recommended and what is available, awareness of these vaccine-preventable diseases must grow and people must insist that their provincial public health organizations promote and fund them for the good of all Canadians. “There needs to be a public demand as well as a political solution,” says Dr. Scheifele. ■

By D.F. McCourt



MEDICAL BREAKTHROUGHS MAY COME OUT OF THE LAB.
BUT THEY BEGIN IN THE HEART.

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Flu Season Is Nearly Upon Us

And Misconceptions About The Influenza Vaccine Continue

Every year about this time I have a dream where I wake up and the flu has been eradicated. It hasn't come true yet. And so every year, like millions of other Canadians, I trek down to a clinic or pharmacy and get my annual influenza vaccine. But millions more do not, and 5 to 10 percent of adults in this country continue to get sick with the disease every year.



Dr. Allison McGeer
Director,
Infection Control,
Mount Sinai Hospital



Dr. Bryna Warshawsky
Public Health
Physician,
Communicable
Disease, Public
Health Ontario

“The effectiveness of last year’s vaccine doesn’t predict this year’s.”

— Dr. Bryna Warshawsky

Most healthy people who get sick with the flu will recover in one to two weeks, but the economic impact of missed work and hospital visits is still substantial. And for some, especially those over 60 and those with chronic conditions, complications from the flu can be severe and even life-threatening. “Influenza is the most common infectious disease cause of death in Canada,” says Dr. Allison McGeer, Director of Infection Control at Mount Sinai Hospital in Toronto.

The good news is that most provinces and territories provide the vaccine free to all residents six months of age and older, with the exceptions being Quebec, British Columbia, and New Brunswick, all of which offer the vaccine only to those at high risk. And yet, despite this, many Canadians are still opting not to receive immunization.

Concerns about safety and efficacy

Many people are concerned about the effectiveness of the flu shot, especially after last year’s vaccine failed to protect against the strain that ended up being most

prevalent in Canada. Historically, though, the flu vaccine is about 50 to 60 percent effective, meaning that vaccinated people lower their risk of getting influenza by about half compared to unvaccinated people. “The measurement is not whether a vaccine works all the time,” reminds Dr. McGeer. “The measurement is whether it’s better to take it or not to take it, in terms of how likely you are to get sick and how serious the illness will be. On that scale, there is no question about the efficacy of the flu vaccine. Years and years of data and research have shown that.”

Some people also believe that the influenza vaccine can itself cause the flu. “The vaccine does not result in the flu,” says Dr. Bryna Warshawsky, Public Health Physician at Public Health Ontario. “The most common side effect is a sore arm. Still, a lot of the time people think they got the flu afterwards because they have caught one of the other viruses that are circulating at the same time.”

It’s equally important to remember that there are many different strains of influenza and new ones are evolving all the time. Each year, the flu vaccine is formulated in an attempt to target the three or four strains expected to be most prevalent in the upcoming flu season. “The effectiveness of

last year’s vaccine doesn’t predict this year’s,” says Dr. Warshawsky. “The viruses change frequently and the composition of the vaccine changes every year to try to match them.”

The dream of one vaccine for a hundred flus

As for my dream of wiping out the flu, it’s not quite as far-fetched as you might imagine. It’s years away at best, but scientists are working hard in an attempt to develop a broad spectrum permanent influenza vaccine. “That’s the holy grail of influenza vaccines,” says Dr. McGeer. “Just recently there have been some reports on a mouse influenza vaccine that’s much more broad spectrum. That’s a long way from a human vaccine, but there is a lot of development work going into it.”

Until that time, it’s off to the clinic for me, not just to protect myself, but also to protect those at higher risk who I may come in contact with. Hopefully, more Canadians than in years past will be doing the same. ■

By D.F. McCourt

PROTECT ONE. PROTECT ONE ANOTHER.



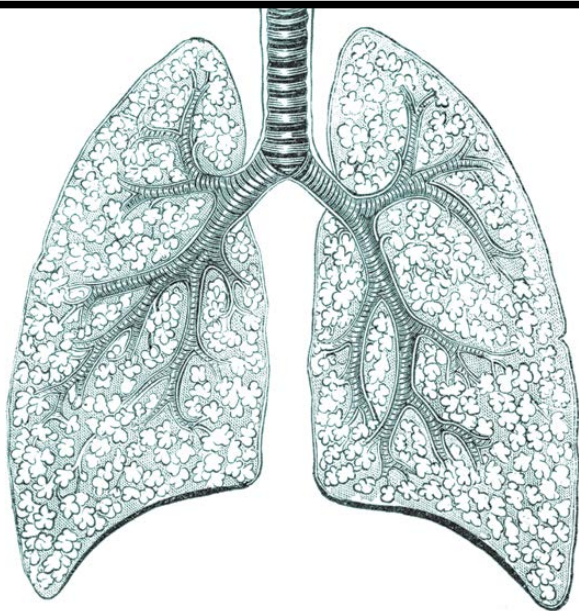
One hundred years ago, infectious diseases were the leading cause of death worldwide. Thanks to the discovery of vaccines and the introduction of immunization programs across the country, they now account for less than five percent of all deaths in Canada. With such success, it can be easy to forget the value of immunization. When you choose vaccination, not only do you protect yourself, you also help reduce the spread of disease – particularly to those too young to be vaccinated. Together, we help protect one another.

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Pneumonia Is A Killer Disease

And It's Vaccine-Preventable



Dr. Vivien Brown
President,
Federation of Medical
Women of Canada,
CFPC representative
to Immunize Canada

Pneumococcus is a pathogenic bacterium that causes pneumonia, in addition to a variety of other potentially serious conditions. It spreads easily and can be deadly. According to the Public Health Agency of Canada, approximately five to seven percent of Canadians with pneumococcal pneumonia die, with the fatality rate being even higher among the elderly. It's one of the most pervasive and dangerous vaccine-preventable diseases.

The pneumococcus vaccines are perhaps less well known than other vaccines like those for the flu or for measles, but they are considered by the World Health Organization to be among the most essential medicines in a basic health system.

Are you high risk or highest risk?

Though pneumococcus immunization is not necessary for all healthy adults, the group of Canadians eligible for vaccination is still quite large. The National Advisory Committee on Immunization (NACI), which provides guidelines to public health agencies in Canada, recommends a pneumococcal vaccine for anyone with asthma, diabetes, chronic heart disease, chronic lung disease, or chronic liver disease, as well as for adults living in long-term care facilities and anyone over the age of 65.

"There are two different kinds of vaccines for pneumonia," explains Dr. Vivien Brown, President of the Federation of Medical Women of Canada and CFPC representative to Immunize Canada. "There are polysaccharide vaccines that cover 23 subtypes, which are recommended for everyone over 65."

"The other vaccine is a conjugate vaccine," continues Dr. Brown. "Conjugate vaccines provide a more aggressive immune response. This vaccine

is not new and has been widely administered to infants for at least ten years, but only recently has it been recommended by NACI for specific use in some high risk adults."

In Canada, taking a course of both vaccines is only recommended for those in the highest risk categories. "A highest risk person with, say, an immune deficiency or an underlying cancer would ideally take the conjugate vaccine then the polysaccharide vaccine in sequence to provide the best coverage," says Dr. Brown. "One booster shot is recommended after five years."

Between these two vaccines and the annual influenza vaccine ("You have to remember that influenza and pneumonia are partners in crime," says Dr. Brown), we have a strong arsenal for defending against deadly pneumococcal infections. Unfortunately, the National Immunization Coverage survey shows that less than half of all Canadians eligible for a pneumococcal vaccine have received one.

Impact on quality of life

The result is that many Canadians are facing an unnecessary risk. For those over 65, pneumonia is a dangerous infection that could strike at any time and, even when it is not fatal, it can have long lasting effects on quality of life. Many who come down with the disease at this stage of their lives never fully recover. The lingering impact can be debilitating, making even climbing a set of stairs a permanent challenge.

What this means for older Canadians is that failure to vaccinate against pneumococcus can steal away their independence and rob them of the ability to enjoy their retirement. Traveling, golfing, and even playing with grandchildren can be permanently sidelined by a single illness. Too many people think of

Top 10 Reasons To Ask About Adult Immunization

- ❶ You want the best protection against preventable diseases
- ❷ You're pregnant or plan to be
- ❸ You plan to travel to another country
- ❹ You're a gardener or work with soil
- ❺ You're a parent or grandparent
- ❻ You're a student living in residence
- ❼ You have a medical condition
- ❽ You're a health care provider or caregiver
- ❾ Your occupation or lifestyle exposes you to infection
- ❿ You haven't checked your immunization record for years

There are many more reasons. Ask your doctor, nurse, local public health office or pharmacist about your specific immunization needs.

Source: Immunize Canada

pneumonia primarily as something that kills the very old, and it is that, but for those in their mid-sixties who may have decades of good health and active living ahead of them, it still presents grave risks.

The most important thing is to speak to your doctor, nurse, or pharmacist about the right immunization program for you. Too many Canadians are unaware that they are at high risk for pneumonia or unaware that they can protect themselves from infection. With pneumonia and influenza combined being the sixth leading cause of death in Canada, it's a conversation worth having. ■

By D.F. McCourt

Have A Safe Trip: The Importance Of Travel Vaccination

By D.F. McCourt

It can already be difficult for Canadians to navigate the sea of vaccines recommended for adults to receive for protection against diseases prevalent here at home. How much more difficult is it to make informed decisions when travelling to other parts of the world where different, and potentially much more deadly, diseases are endemic?

For many people, travel vaccination is an afterthought rather than a conscious part of their planning for a trip or vacation. And even when people do give consideration to travel vaccination, they are notoriously bad at evaluating the real risks involved. "People have a pretty hard time assessing risk," says Dr. Brian Ward, a professor of Medicine and Microbiology at McGill University. This is particularly true when it comes to diseases that travellers may be unlikely to catch but which are devastating when they do, like typhoid, yellow fever, or rabies. "A one in five thousand risk means you have to vaccinate five thousand people to prevent one case. But each case of these diseases is really very bad."

And the issue goes well beyond leisure travellers. "There is a large group of people returning to introduce their Canadian-born kids to relatives back in the old country," says Dr. Ward. "We call these people VFR (Visiting Friends and Relatives) travellers, and they are at massively elevated risk for just about everything. In many cases they are nonchalant about the risk, because they came from these countries themselves."

Travellers are also often exposed to food or water contamination at more adventurous third world destinations. Hepatitis A is seldom seen in Canada these days, but is a common disease elsewhere. There is a vaccine.

Currently, very few travellers even consider travel vaccines (perhaps as low as 15 or 20 percent), and the numbers are even lower among VFR travellers who are usually at higher risk. The most important thing, says Dr. Ward, is to make an appointment at a travel clinic in the early planning stages of your trip to receive information about recommended vaccines and to help you properly assess the costs and risks involved. ■



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