

Pneumococcal Disease and Vaccination

Fact Sheet for Key Stakeholders

DID YOU KNOW



Pneumococcal disease is a group of contagious diseases caused by the bacterium *Streptococcus pneumoniae* (*S. pneumoniae*).¹

- This bacterium commonly causes serious infections and diseases

Pneumococcal disease is a *different* disease from the flu (influenza), COVID-19, and RSV (respiratory syncytial virus), and *each* require their own vaccines for protection.

WHAT ARE THE SYMPTOMS AND RISKS OF PNEUMOCOCCAL DISEASE?

Symptoms may include²:

- Cough with mucus
- Fever
- Fast breathing and heart rate
- Chest pain that feels worse when you cough or breathe in
- Tiredness or weakness

Risks may include²:

- Infection of the lungs (**pneumonia**)
- Swelling of the brain lining (**meningitis**), which can lead to deafness, brain damage, and death
- Blood infections (**septicemia**)



WHO IS AT RISK?

Older adults have a greater risk for complications and death from pneumococcal disease because they often have **multiple health conditions and illnesses** and **less responsive immune systems**.⁵

Those living in **long-term care** are generally more vulnerable to illness from **congregate living** (e.g. eating together, sharing spaces and participating in group activities), which increases the spread of bacterial and viral diseases.⁶

Those with certain underlying medical conditions (i.e. diabetes or chronic heart, lung, liver, or renal disease) and specific lifestyle factors (i.e. smokers, persons with alcoholism, persons who are homeless, use of illicit drugs) are also at risk.^{7,3}

WHAT ARE THE POTENTIAL COMPLICATIONS OF PNEUMOCOCCAL DISEASE?

Infections caused by the bacterium *S. pneumoniae* are a huge cause of global illness and death.³

Among Canadians 65 years and older, pneumonia on average was^{3,4}:

- 1 of the top 10 leading causes of hospitalizations and
- 8th most common cause of death (in addition with influenza).

HOW IS *S. PNEUMONIAE* SPREAD?

S. pneumoniae is spread through sneezing, coughing, or other contact with those already infected by the bacterium.³

WHAT ARE THE BENEFITS OF PNEUMOCOCCAL VACCINATION?

Pneumococcal vaccination offers protection against pneumococcal infection that can cause hospitalization or death and makes the disease milder for those who become infected.^{8,9}

WHAT ARE THE PNEUMOCOCCAL VACCINATION RECOMMENDATIONS?

According to the Canadian Immunization Guide, pneumococcal vaccination for adults is recommended particularly for¹⁰:

- All adults that are **65 years of age and older**
- Residents of **long-term care**
- Those at high risk of **Invasive Pneumococcal Disease (IPD)**, which is a group of serious pneumococcal infections, because of:
 - **Underlying medical conditions**, and/or
 - **Certain lifestyle factors**



PNEUMOCOCCAL VACCINES IN CANADA

In Canada, the following vaccines are authorized for use and recommended for older adults (there are regional and risk-factor exceptions):

- 01 Pneumococcal 20-valent conjugate (Pneu-C-20) vaccine:**
 - Recommended by NACI, for adults 50 to 64 years of age with risk factors making them more vulnerable to pneumococcal disease, or 18 to 49 years of age with immunocompromising conditions, who have not previously been vaccinated with a pneumococcal vaccine or whose vaccination status is unknown.¹⁰
- 02 Pneumococcal 15-valent conjugate (Pneu-C-15) vaccine:**
 - As an alternative to Pneu-C-20, NACI recommends that adults may be offered 1 dose of this vaccine followed by Pneu-P-23, for the following adults groups who have not been previously vaccinated against pneumococcal disease or whose vaccination status is unknown including those: 18-49 years of age with immunocompromising factors, 50-64 years of age with medical conditions or other risk factors placing them at a higher risk of pneumococcal disease, and adults 65 years of age and older.¹¹
- 03 Pneumococcal conjugate 13-valent (Pneu-C-13) vaccine:**
 - Recommended by NACI, this vaccine may be considered for all adults that are 65 years of age and older and have not received a previous pneumococcal vaccine.¹⁰
- 04 Pneumococcal polysaccharide 23-valent (Pneu-P-23) vaccine:**
 - Typically recommended by NACI for all adults that are 65 years of age and older, regardless of risk factors or previous pneumococcal vaccination¹⁰

Some older adults may be eligible for **co-administration** (receiving more than one vaccine at the same time) of the pneumococcal vaccine with other recommended vaccines, such as for the flu, RSV, COVID-19, shingles, tetanus, and diphtheria. This will vary between provinces, territories, and municipalities.

Civil society, patient, and professional organizations, and health care professionals are key partners in advocacy to promote pneumococcal vaccination amongst older adults.

Actions for advocacy:

- ✓
 - Assess your organization's mandate and how vaccination fits in.
 - Engage with other key stakeholders interested in the health and well-being of older adults.
 - Collectively strategize with regional public health and governments through meaningful campaigns and joint partnerships.
- ✓ **Share evidence-informed and reliable information on pneumococcal disease and vaccination with partners, colleagues, and older adults.**
- ✓ **Learn about the work and agendas of others to:**
 - Advance advocacy efforts,
 - Provide solutions, and
 - Collaborate on common goals for improving pneumococcal vaccination.

HOW CAN WE ADVOCATE TO ENSURE OLDER ADULTS ARE VACCINATED AGAINST PNEUMOCOCCAL DISEASE?





REFERENCES

1. Pneumococcal Disease [Internet]. [cited 2023 Sep 17]. Available from: <https://www.who.int/teams/health-product-policy-and-standards/standards-and-specifications/vaccine-standardization/pneumococcal-disease>
2. Pneumococcal disease - Fraser Health Authority [Internet]. [cited 2023 Oct 15]. Available from: <https://www.fraserhealth.ca/health-topics-a-to-z/immunizations/diseases-and-immunizations/pneumococcal-disease>
3. Hospital stays in Canada | CIHI [Internet]. [cited 2023 Sep 18]. Available from: <https://www.cihi.ca/en/hospital-stays-in-canada>
4. Leading causes of death, total population, by age group [Internet]. [cited 2024 February 13]. Available from: <https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1310039401>
5. Vaccination for adults - Canada.ca [Internet]. [cited 2023 Sep 18]. Available from: <https://www.canada.ca/en/public-health/services/vaccination-adults.html#a5>
6. Health Ontario P. New Health Canada Authorized Pneumococcal Conjugate Vaccines for Adults Aged ≥ 18 Years Recommendations: New Health Canada Authorized Pneumococcal Conjugate Vaccines for Adults Aged ≥ 18 Years. 2023;
7. Pneumococcal Disease Risk Factors: Information for Clinicians | CDC [Internet]. [cited 2023 Sep 20]. Available from: <https://www.cdc.gov/pneumococcal/clinicians/risk-factors.html>
8. Pneumococcal vaccines | Immunize BC [Internet]. [cited 2023 Sep 18]. Available from: <https://immunizebc.ca/vaccines-by-disease/pneumococcal>
9. Government of Ontario M of H and LTC. Pneumococcal Vaccine (Polysaccharide - for age 2 years and over) - Immunization - Publications - Public Information - MOHLTC. [cited 2023 Sep 17]; Available from: <https://www.health.gov.on.ca/en/public/publications/immune/pnem.aspx>
10. Pneumococcal vaccines: Canadian Immunization Guide - Canada.ca [Internet]. [cited 2023 Oct 24]. Available from: <https://www.canada.ca/en/public-health/services/publications/healthy-living/canadian-immunization-guide-part-4-active-vaccines/p-age-16-pneumococcal-vaccine.html#a9>
11. Public Health Agency of Canada, Canada. National Advisory Committee on Immunization. Public health level recommendations on the use of pneumococcal vaccines in adults, including the use of 15-valent and 20-valent conjugate vaccines. :102.

This initiative has been supported by Pfizer Canada.
Part of the Mobilizing the advocacy of pneumococcal pneumonia vaccination for older adults in long-term care settings in Canada initiative.

