FOR INDIVIDUALS
65+

Fluzone® *High-Dose*
INFLUENZA VACCINE
Senior Influenza Protection

DEMONSTRATED EVIDENCE FOR FLUZONE® HIGH-DOSE

FLUZONE® High-Dose is indicated for active immunization against influenza caused by the specific strains of influenza virus contained in the vaccine in adults 65 years of age and older.[1]

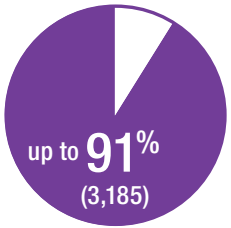
SANOFI PASTEUR

THE RISKS OF INFLUENZA

Adults 65+ suffer disproportionately from influenza-related morbidity and mortality.[2,3]

They account for **15%** of the population, but experience:[2,4-9]

Total
Deaths*†
3,500



Total
Hospitalizations*†
12,200

Adults 65+

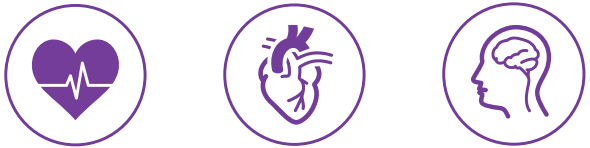
* Estimated from Canadian adults aged 65 and older during the 2013–2018 influenza seasons.[4-9]

† FLUZONE® High-Dose is not indicated to reduce morbidity and mortality or complications associated with influenza, such as deaths or hospitalizations.

POTENTIAL COMPLICATIONS OF INFLUENZA

Indirect effects: beyond respiratory/direct effects*

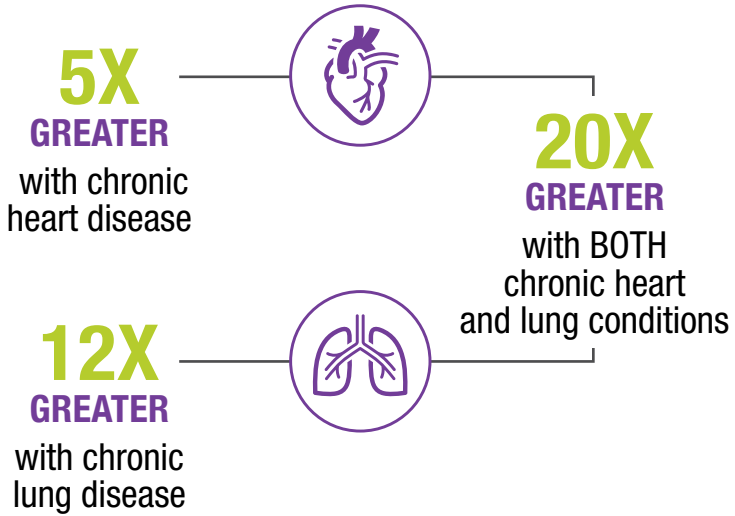
Trigger for:[3, 10-12]



Exacerbation of:[3,13,14]

* FLUZONE® High-Dose is not indicated for reduction of potential complications of influenza such as acute myocardial infarction (AMI), ischemic heart disease (IHD), cerebrovascular disease (CVD), renal disorders, diabetes or respiratory direct effects.

For adults 65+ higher influenza-attributed mortality is associated with chronic conditions[15†]



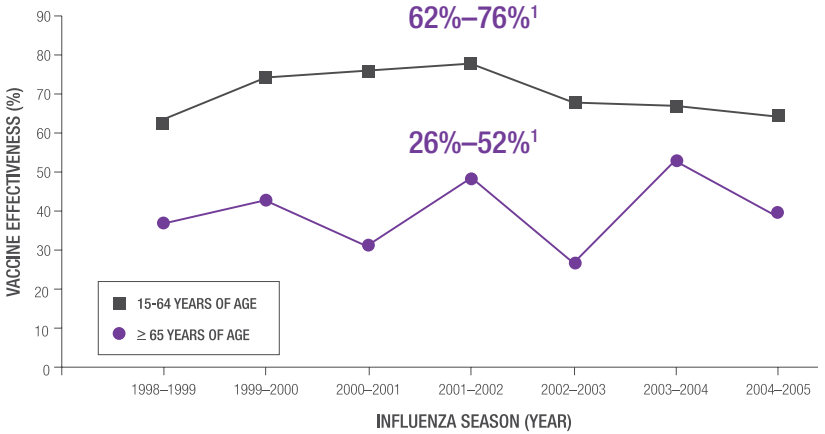
† FLUZONE® High-Dose is not indicated to reduce influenza-attributed mortality associated with chronic conditions such as chronic heart and lung disease.

VACCINE EFFECTIVENESS IN 65+ YEAR-OLDS

- Immunosenescence is a heightened susceptibility to influenza-related complications in older adults due to the natural and progressive weakening of the immune system over time[1]
- This renders seniors less responsive to standard-dose influenza vaccine[1]

In the elderly, vaccine effectiveness is ~50% less than that in healthy adults and varies depending on the outcome measures and the study population.[3]

A study showed that for the influenza seasons 1998–1999 through to 2004–2005, the range of standard-dose vaccine effectiveness was:[1,17*]



* Standard-dose trivalent influenza vaccine with 15 µg HA per strain/0.5 mL dose.

Adapted from Legrand J, et al. Real-time monitoring of the influenza vaccine field effectiveness. *Vaccine.* 2006;24:6605–6611.

SUPERIOR EFFICACY

Fluzone® High-Dose
INFLUENZA VACCINE

Senior Influenza Protection

FLUZONE® High-Dose vaccine is the only vaccine demonstrated, through a large randomized study, to be more efficacious than FLUZONE® standard-dose vaccine in preventing influenza in adults 65+.[18]

FLUZONE® High-Dose, trivalent, inactivated influenza vaccine contains 60 µg of hemagglutinin (HA), which is **4X** as much HA as in FLUZONE®, a standard-dose influenza vaccine with 15 µg HA.[1,16*]

Over **112 MILLION DOSES** of FLUZONE® High-Dose have been distributed in the U.S. since 2009.[19]

* Comparative clinical significance has not been established.

FLUZONE® High-Dose vaccine demonstrated superior efficacy compared to FLUZONE®, a standard-dose influenza vaccine, against laboratory-confirmed influenza illness.[1,16*†] Study results from a randomized, multicentre, double-blind trial with 31,803 adults 65+[1,16]

24.2%

MORE EFFICACIOUS
against influenza caused by any virus type or subtype in adults 65+
(95% CI: 9.7; 36.5)[1,16,§‡¶]

35.4%

MORE EFFICACIOUS
against influenza caused by strains similar to the vaccine components (secondary endpoint; 95% CI: 12.5 to 52.5)[16,§‡¶]

- The attack rates of laboratory-confirmed influenza-like illness (primary endpoints) were 1.43% in the FLUZONE® High-Dose arm and 1.89% for the FLUZONE® arm
- The absolute rates of laboratory-confirmed influenza were 0.5% for FLUZONE® High-Dose and 0.7% for FLUZONE® Trivalent[16]

* Comparative clinical significance has not been established. † FLUZONE®: a standard-dose trivalent influenza vaccine with 15 µg HA per strain/0.5 mL dose.[16] § The pre-specified statistical superiority criterion for the primary endpoint (lower limit of the 2-sided 95% CI of the vaccine efficacy of FLUZONE® High-Dose relative to FLUZONE® > 9.1%; p-value against H_0:VE ≤ 9.1% = 0.022 one-sided) was met. ‡ In a multicentre study (FIM12) conducted in the United States and Canada, adults 65+ were randomized (1:1) to receive either FLUZONE® High-Dose or FLUZONE® Trivalent. The study was conducted over two influenza seasons (2011–2012 and 2012–2013). FLUZONE® High-Dose contained 60 µg of HA per strain while FLUZONE® Trivalent contained 15 µg of HA per strain. The per-protocol analysis set for efficacy assessments included 15,892 FLUZONE® High-Dose recipients and 15,911 FLUZONE® Trivalent recipients. The primary endpoint of the study was the occurrence of laboratory-confirmed influenza, defined as a new onset (or exacerbation) of at least one of the following respiratory symptoms: sore throat, cough, sputum production, wheezing, or difficulty breathing; concurrent with at least one of the following systemic signs or symptoms: temperature > 37.2°C, chills, tiredness, headaches or myalgia. ¶ In the first year of the study, the influenza B component of the vaccine and the majority of influenza B cases were of the Victoria lineage; in the second year, the influenza B component of the vaccine and the majority of influenza B cases were of the Yamagata lineage.

National Advisory Committee on Immunization (NACI) Recommendations for 65+ Year-olds

2020-2021 NACI STATEMENT (FOR INDIVIDUAL-LEVEL DECISION-MAKING):

When available, "**high-dose trivalent inactivated vaccine** should be used over the standard-dose trivalent inactivated vaccine, given the burden of influenza A(H3N2) disease."

"NACI does not make comparative individual-level recommendations on the use of IIV3-Adj or IIV4-SD over IIV3-SD or among IIV3-Adj, IIV3-HD, and IIV4-SD."[3]

Click here to read the full statement

IIV3-Adj: adjuvanted trivalent inactivated influenza vaccine; **IIV4-SD:** standard-dose quadrivalent inactivated influenza vaccine; **IIV3-SD:** standard-dose trivalent inactivated influenza vaccine; **IIV3-HD:** high-dose trivalent inactivated influenza vaccine.

INDICATIONS AND CLINICAL USE:

FLUZONE® High-Dose is indicated for active immunization against influenza caused by the specific strains of influenza virus contained in the vaccine in adults 65 years of age and older. Annual flu vaccination using the most current vaccine is recommended as immunity declines in the year following vaccination.

CONTRAINDICATIONS:

- Known severe allergic reaction to egg protein or any component of the vaccine or after previous administration of FLUZONE® High-Dose or a vaccine containing the same components or constituents.

RELEVANT WARNINGS AND PRECAUTIONS:

- FLUZONE® High-Dose is not indicated for persons less than 65 years of age.
- As with any vaccine, immunization with FLUZONE® High-Dose may not protect 100% of individuals. Protection is limited to those strains of virus from which the vaccine is prepared or against closely related strains.
- Do not administer FLUZONE® High-Dose by intravascular injection. Do not administer into the buttocks.
- Postpone vaccination in case of moderate/severe febrile illness or acute disease.
- Administer FLUZONE® High-Dose with caution in persons suffering from coagulation disorders or on anticoagulation therapy.
- Immunocompromised persons (whether from disease or treatment) may not elicit the expected immune response.
- Avoid vaccinating persons who are known to have experienced Guillain-Barré syndrome (GBS) within 6 weeks after a previous influenza vaccination.

ADVERSE REACTIONS:

In clinical trials, the most frequently reported adverse reactions were pain (35.6%), swelling (8.9%) and erythema (14.9%) at the injection site, myalgia (21.4%), malaise (18.0%), headache (16.8%). Most of the side effects resolved within 3 days.

FOR MORE INFORMATION:

Visit ***products.sanofi.ca/en/fluzone-hd.pdf*** for important information relating to adverse reactions, drug interactions and dosing information which have not been discussed in this piece. The product monograph is also available through our Medical Department.
Call us at 1-888-621-1146.

Fluzone® High-Dose
INFLUENZA VACCINE

Senior Influenza Protection

References: 1. FLUZONE® High-Dose vaccine. Product Monograph. Sanofi Pasteur Inc.; April 2020. **2.** Public Health Agency of Canada (PHAC). FluWatch. August 20 to 26, 2017. **3.** An Advisory Committee Statement (ACS)/ National Advisory Committee on Immunization (NACI): Canadian Immunization Guide Chapter on Influenza and Statement on Seasonal Influenza Vaccine for 2020–2021. May 2020. **4.** PHAC. FluWatch. August 11 to 24, 2013. **5.** PHAC. FluWatch. August 10 to 23, 2014. **6.** PHAC. FluWatch. August 16 to 29, 2015. **7.** PHAC. FluWatch. August 14 to 27, 2016. **8.** PHAC. FluWatch. August 20 to 26, 2017. **9.** PHAC. FluWatch. July 22 to August 25, 2018. **10.** Udell JA, *et al.* Association between influenza vaccination and cardiovascular outcomes in high-risk patients: a meta-analysis. *JAMA.* 2013;310(16):1711–1720. **11.** Grau AJ, *et al.* Influenza Vaccination Is Associated With a Reduced Risk of Stroke. *Stroke.* 2005;36(7):1501–1506. **12.** CDC Morbidity and Mortality Weekly Report. August 26, 2016;65(5). Prevention and Control of Seasonal Influenza with Vaccines Recommendations of the Advisory Committee on Immunization Practices – United States, 2016-17 Influenza Season. https://www.cdc.gov/mmwr/volumes/65/rr/rr6505a1.htm. Last updated: August 25, 2016. Accessed: March 2020. **13.** Husein N, *et al.* Influenza and Pneumococcal Immunization Canadian Diabetes Association Clinical Practice Guidelines Expert Committee. *Canadian Journal of Diabetes.* 2013;37 Supplement 93. **14.** Chen C-I, *et al.* Influenza Vaccination is Associated with Lower Risk of Acute Coronary Syndrome in Elderly Patients with Chronic Kidney Disease. *Medicine* (Baltimore). 2016;95(5). **15.** Schanzer DL, *et al.* Co-morbidities associated with influenza-attributed mortality, 1994–2000, Canada. Vaccine. 2008;26:4697–4703. **16.** DiazGranados CA, Dunning AJ, Kimmel M, *et al.* Efficacy of high-dose versus standard-dose influenza vaccine in older adults. *N Engl J Med.* 2014;371:635–645. **17.** Legrand J, *et al.* Real-time monitoring of the influenza vaccine field effectiveness. *Vaccine.* 2006;24:6605–6611. **18.** Sanofi Pasteur Inc. Data on file. FLUZONE® High-Dose. Claim Confirmation Letter. December 11, 2015. **19.** Sanofi Pasteur Ltd. Data on file. FLUZONE® High-Dose. Doses Distributed Letter. Jan 2019.

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