



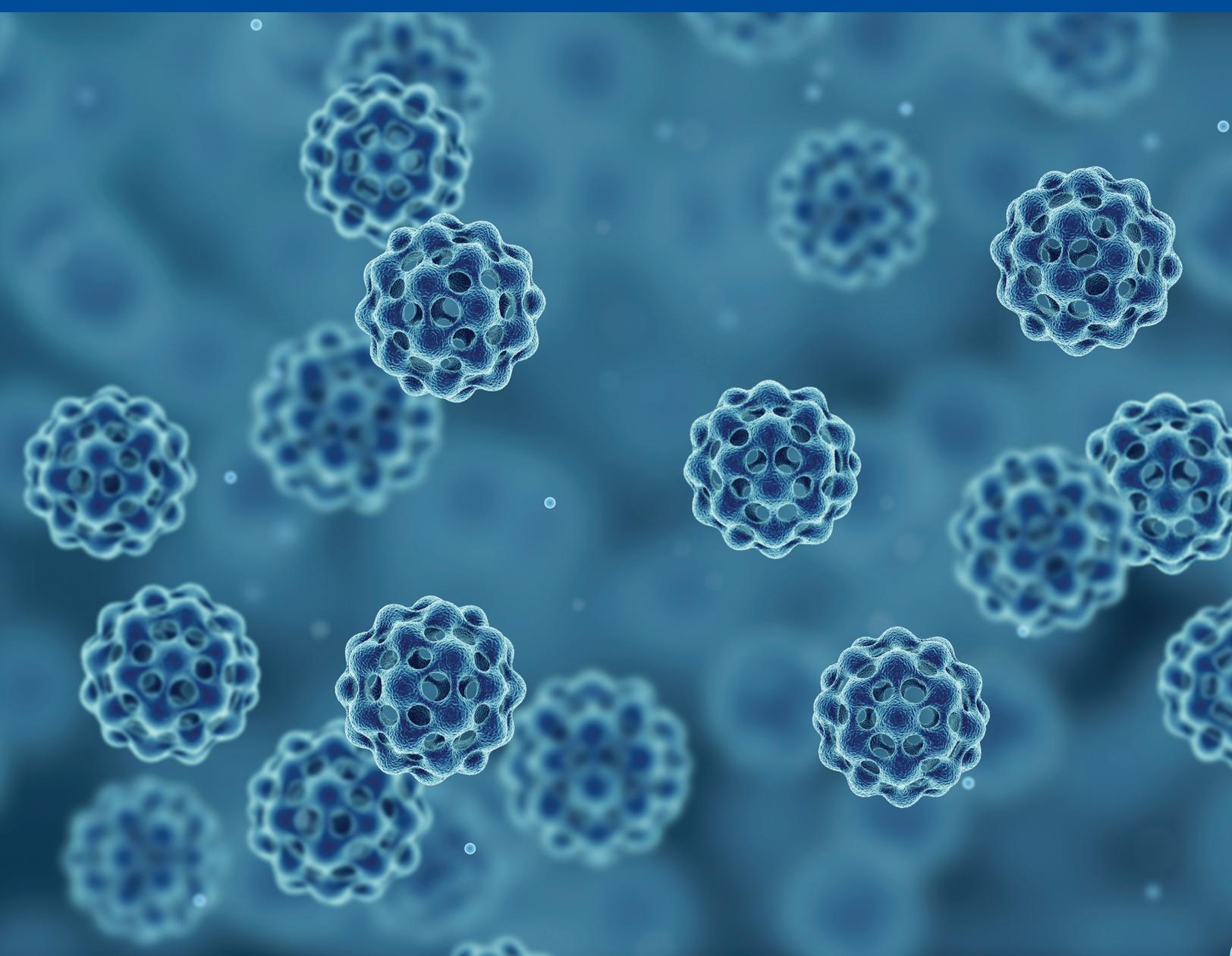
Pharmaceutical Assistance
Contract for the Elderly



Balanced information for better care

Immunizing older adults

The latest recommendations on flu, pneumococcal pneumonia, shingles, and other preventable conditions



Vaccination is a powerful and easy way to prevent devastating disease

TABLE 1. CDC's 2020 recommendations for immunocompetent adults*1

| | 50-64 years | ≥65 years |
|---|---|--|
| Influenza (inactivated or recombinant) | 1 dose annually | |
| Pneumococcal pneumonia: Pneumovax (pneumococcal polysaccharide, PPSV 23) | Yes, if risk factors (see page 6) | 1 dose (if dose was given <65, wait 5 years before the next) |
| Pneumovax (pneumococcal conjugate, PCV 13) | Yes, if risk factors (see page 6) | 1 dose (optional)** |
| Shingles (zoster, recombinant [Shingrix]) | 2 doses, 2-6 months apart | |
| Tetanus, diphtheria, pertussis (Tdap or Td) | 1 dose of Tdap, then Td or Tdap booster every 10 years | |

*Full adult vaccine schedule is at [cdc.gov/vaccines/schedules](https://www.cdc.gov/vaccines/schedules). Travel related vaccine recommendations are at [cdc.gov/travel](https://www.cdc.gov/travel).

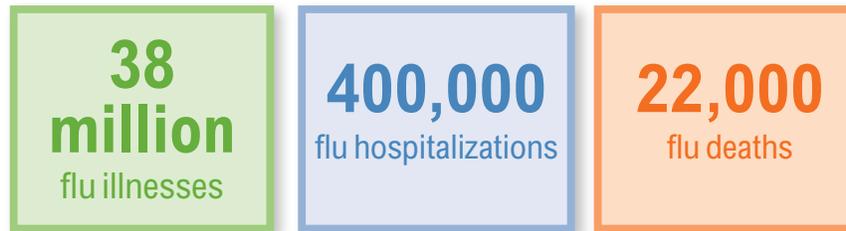
**Factors to consider when deciding whether to offer Pnevmar (PCV 13) are described on page 6. If chosen, Pnevmar should ideally be given at age 65 and Pneumovax (PPSV 23) given one year later. In patients who have already received Pneumovax, if Pnevmar is chosen it can be given one year later.

Key changes for 2020

- PCV 13 (Pnevmar) is no longer recommended for all adults over 65.
- New quadrivalent flu vaccines—high-dose (Fluzone), adjuvanted (Fluad), and recombinant (Flublok)—are now available for adults 65 and over.
- The live zoster vaccine (Zostavax) has been discontinued and replaced with the recombinant product Shingrix.
- For tetanus booster, either Tdap (tetanus, diphtheria, pertussis) or Td (tetanus, diphtheria) is recommended; Td is no longer preferred over Tdap.

Influenza affects millions, with the greatest risk of death in older adults

FIGURE 1. The most recent flu season (2019-2020) sickened millions of Americans, resulting in substantial illness and mortality.²



Over 90% of influenza deaths occur in patients age 60 and over.³

Despite the proven efficacy of the flu vaccine and the risks from influenza, vaccination rates remain suboptimal.

FIGURE 2. Less than half of adult Americans receive the flu shot each year. Although those over 65 are covered best, only 70% of them are immunized.⁴

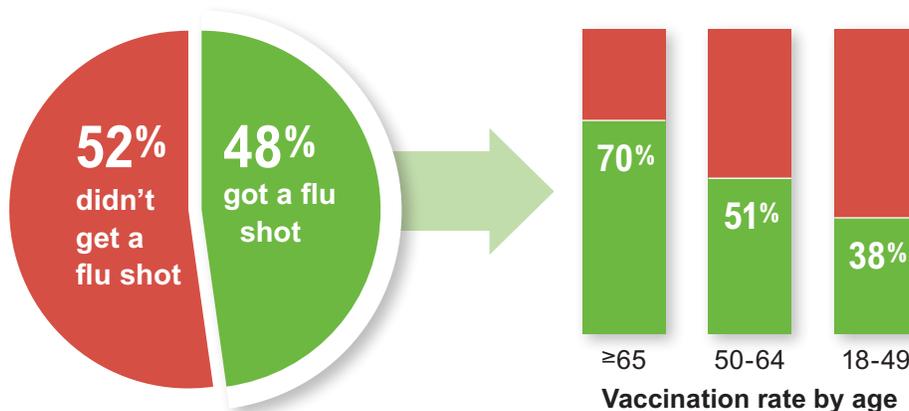
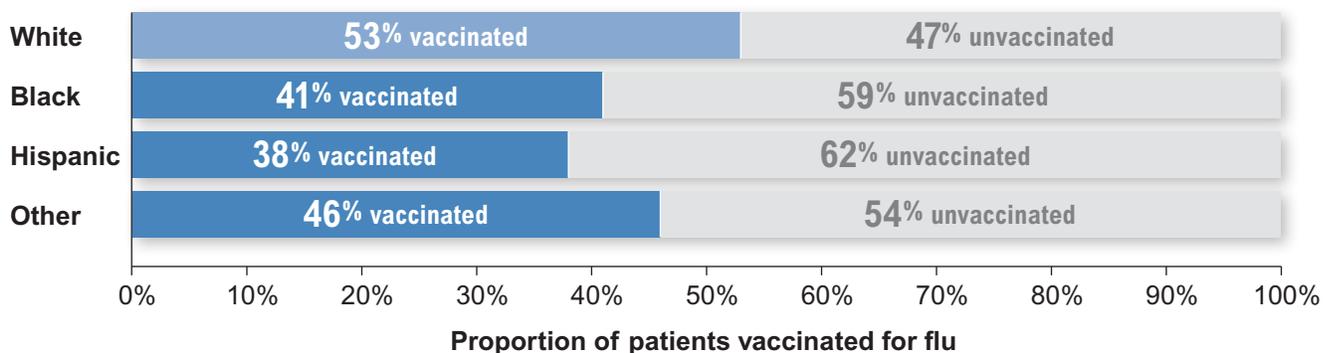


FIGURE 3. Black and Hispanic patients get flu shots at lower rates than white patients.⁴



Newer flu vaccines are specifically developed for older adults



High-dose and adjuvanted influenza vaccines improve immune response in the elderly.



High-dose vaccine has been shown to decrease flu risk in people ≥ 65 more than standard dose vaccine.⁵



The most important decision is to ensure that a patient gets an annual flu shot, even if the ideal formulation isn't available at the time of vaccination.⁶

The “twindemic” crisis: During the Covid-19 pandemic, influenza immunization is especially important to avoid the need for hospitalization and prevent resource scarcity. Extra effort may be needed to immunize patients who are avoiding office visits because of the pandemic.

Engage patients beyond the exam room.

- Patient reminders, such as phone calls, e-mails, postcards, and leaflets, increased flu vaccination rates by 11%.⁷
- Enlisting pharmacists, nurses, and receptionists to encourage vaccination more than doubled the likelihood of patients getting vaccinated against the flu.⁷

These interventions can increase the uptake of other adult immunizations as well.⁸



Dealing with “vaccine hesitancy”

Talk to patients about their beliefs and concerns.

MYTH “I never get the flu.”

REALITY Anyone can get the flu, any year.

Just because you haven't had a car accident doesn't mean you shouldn't wear a seatbelt. In addition to reducing mortality, the flu vaccine can prevent its major complications, especially in older patients.

MYTH “The flu shot gives you the flu.”

REALITY The flu shot doesn't give you the flu.

- Most patients have no reaction, or just some minor soreness at the injection site.
- All injectable flu vaccines are made from inactivated virus and do not contain live virus, so they can't possibly “cause the flu.”
- The vaccine is usually given at the start of cold and flu season, when people normally contract upper respiratory infections. This is not a result of the vaccination, but of viral illnesses circulating in the community at the same time.

MYTH “The flu shot doesn't work that well.”

REALITY The flu shot benefits patients, even though it is not 100% effective.

- The efficacy of the flu vaccine varies year to year based on the match between the vaccine and the strains of the virus circulating in the community. Patients may be skeptical because in many years, efficacy is often in the 40-60% range.⁹ But even at this level, vaccination substantially reduces the risk of death, severity of illness, and length of hospitalization.¹⁰
- The flu vaccine is at least as effective as many other treatments used to prevent disease (e.g., statins and blood pressure medications). And while many preventive medications must be taken daily, flu vaccine is given just once a year and has a lower risk of side effects.

MYTH “The flu isn't that serious; it's just like a bad cold.”

REALITY Viral influenza can be a severe and sometimes fatal disease, especially in people over 65.

The two pneumococcus immunizations: When to give which?

Two vaccines can protect against various strains of pneumococcal pneumonia. Pneumovax (PPSV 23) is a polysaccharide vaccine; Prevnar (PCV 13) is a conjugate vaccine. Adding PCV 13 is no longer routinely recommended for all adults over 65 because the strains it covers have been markedly reduced by childhood immunizations.¹¹

TABLE 2. Recommendations for pneumococcal vaccination based on patient factors and age^{11,12}

| | Age 19-64 | Age ≥65 |
|--|---|--|
| Healthy adult | Not routinely indicated | Pneumovax |
| Underlying medical conditions* | Pneumovax | Prevnar (optional) + Pneumovax |
| Immunocompromising conditions** | Prevnar + Pneumovax ≥8 weeks later + Pneumovax 5 years later | Pneumovax[§] |

*e.g., smoking, alcoholism, chronic heart disease, chronic liver disease, chronic lung disease, diabetes

**Including, but not limited to: chronic renal failure, HIV, solid organ transplant, malignancy and other cancers, asplenia, and use of immunocompromising medications.

§Patients with immunocompromising conditions who did not receive pneumococcal vaccination before the age of 65 should receive Prevnar at the age of 65 followed by Pneumovax at least 8 weeks later.

Not all patients need Prevnar (PCV 13).

Routinely adding Prevnar to the immunization regimen of older patients did decrease the risk of invasive pneumococcal disease for some patients. Those who are more likely to benefit:^{11,12}

- have other chronic conditions (e.g., smoking, alcoholism, heart disease, liver disease, lung disease, diabetes)
- reside in group living (e.g., nursing homes, assisted living)
- use PPIs or other medications that increase risk of pneumonia
- live in areas with low rates of childhood PCV 13 immunization

Tips for timing pneumococcal vaccines



Give Prevnar (PCV 13) before Pneumovax (PPSV 23).

For patients older than 65 who will receive Prevnar, give Prevnar one year before Pneumovax if possible. If Pneumovax is given first, wait one year before giving Prevnar.



If revaccinating with Pneumovax, wait 5 years between doses.

Patients who receive Pneumovax twice should receive these vaccines at least 5 years apart.



A Pneumovax booster is reasonable after 5-10 years.

The efficacy of Pneumovax in preventing pneumococcal pneumonia wanes after 5-10 years. Some experts recommend a booster every 5-10 years after the first dose of Pneumovax.^{13,14}



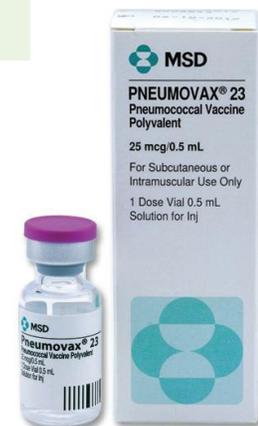
Only give Prevnar once.

If an immunocompromised patient received Prevnar before age 65, there is no need to give another dose. If a patient receives a dose after age 65, no booster is needed.



Both pneumococcal vaccines are safe.

Minor injection site reactions are the most common (15-20%). Systemic side effects occur in under 5% of patients, and most are not severe.

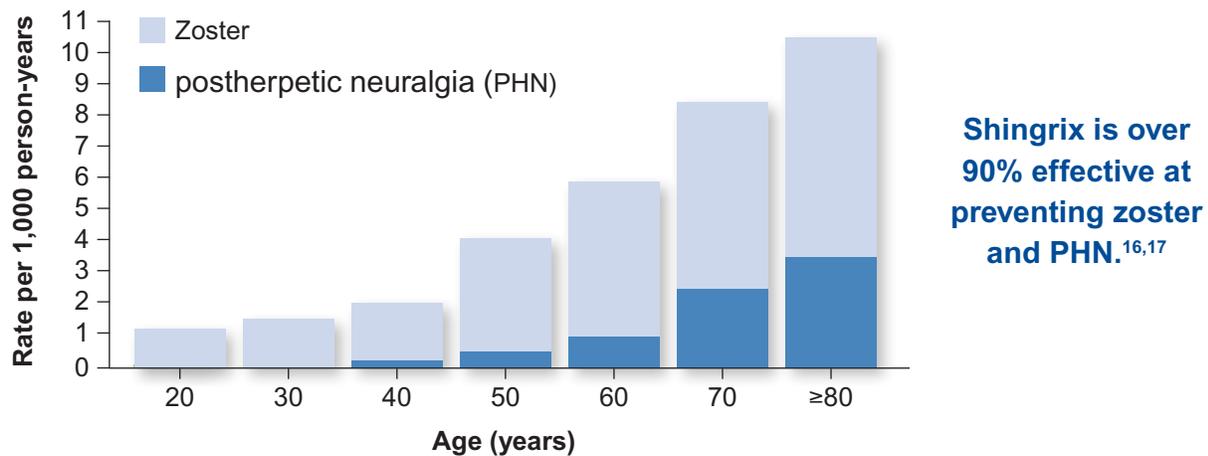


Zoster prevention simplified: Give Shingrix



Nearly all adults harbor herpes zoster within their neurons, following chickenpox infection early in life. The virus can become reactivated in older age, causing the skin manifestation of zoster (“shingles”) and potentially leading to postherpetic neuralgia (PHN), which can be extremely painful and disabling.

FIGURE 4. The incidence of zoster and of PHN increase greatly with age.¹⁵



Shingrix is recommended for all adults over 50, given in a two-dose series, separated by at least 2 months.* A varicella serology test is not needed.¹⁸

*If the second dose is inadvertently given <4 weeks after the first, repeat the second dose. If the second dose is given >6 months after the first, give the second dose. There is no need to repeat the series.

Patients who were previously immunized with Zostavax should be re-immunized with Shingrix. Zostavax is an older live shingles vaccine that was discontinued in 2020. It is not as effective for older adults and its efficacy wanes over time.

Counsel patients about the side effects from Shingrix.

- These are common and include fatigue, myalgia, headache, fever, and shivering in half of patients, though moderate-to-severe reactions only occur in 1 in 10 patients.¹⁶
- Because Shingrix causes more significant systemic symptoms, it is best to give it separately from the flu shot, so that patients do not associate those symptoms with the flu vaccine and thus avoid getting a flu shot in the future.

Tetanus and pertussis



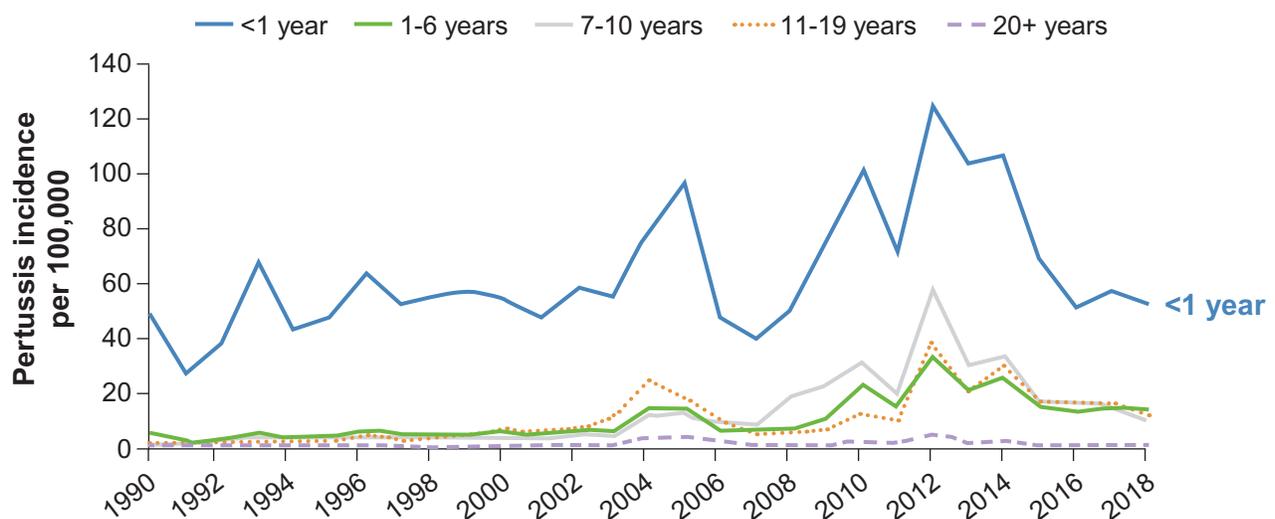
Tetanus can occur in patients who are not up to date on their tetanus vaccinations. Between 2009 and 2017, there were 264 cases. Fatalities occurred in adults over 50.¹⁹



Pertussis (“whooping cough”) most commonly affects young children, and transmission can occur from adults. Despite nearly universal childhood vaccination, incidence has climbed in the past decade, prompting many to advocate pertussis vaccination for adults as well, especially those who come into contact with small children.

Immunization for both conditions can be provided in a single injection.

FIGURE 5. Incidence of pertussis over the past two decades²⁰



A tetanus booster is recommended for all adults every 10 years, and can be combined with pertussis immunization, either Td (tetanus, diphtheria) or Tdap (tetanus, diphtheria, pertussis).^{1,21}

- All patients need at least one dose of Tdap at age 11 or older.
- If Tdap vaccination status is unknown, choose Tdap over Td.
- Td and Tdap both result in a similar immune response to tetanus,²² and have similar side effects, most commonly injection site pain.²¹

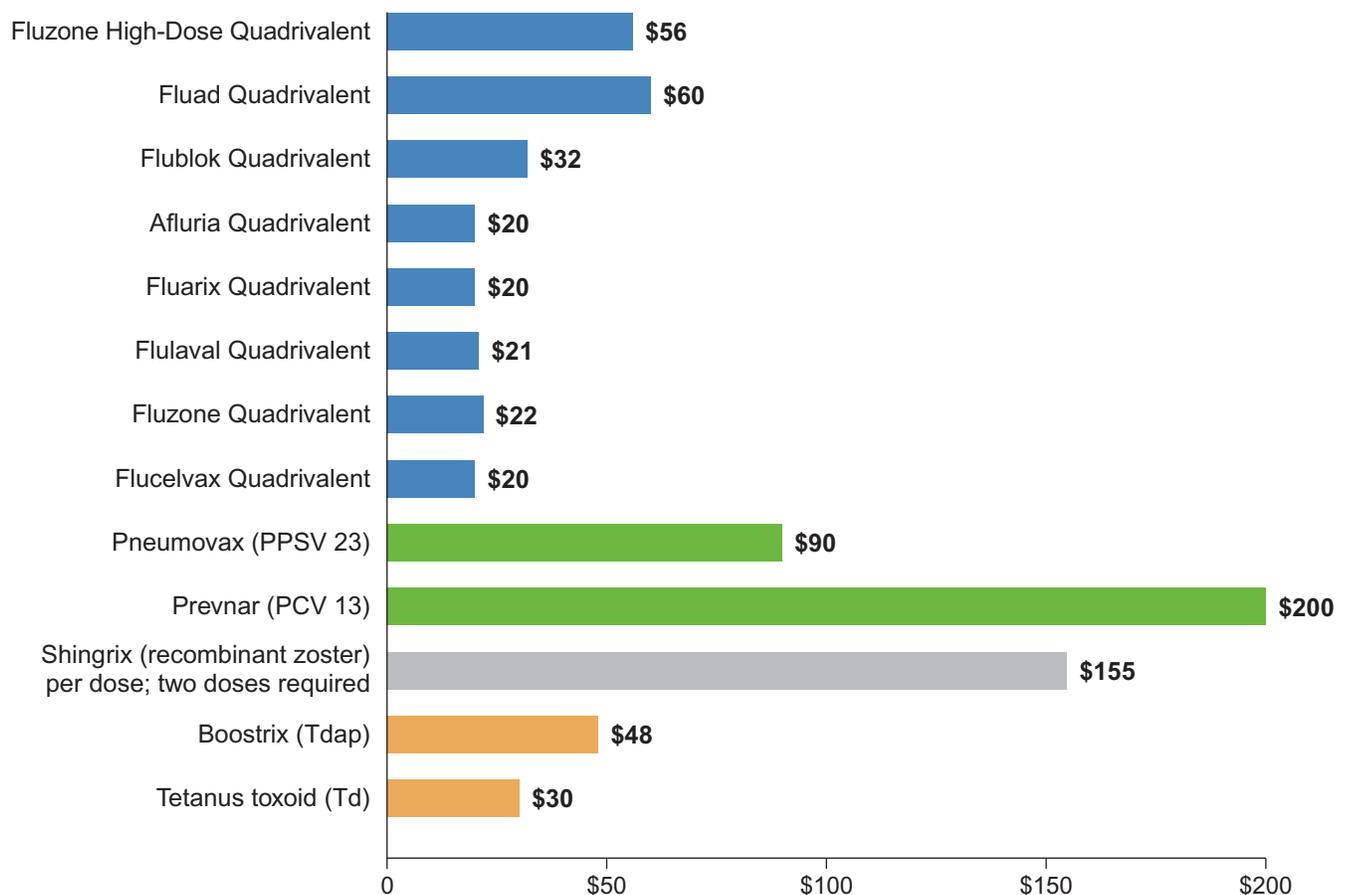
Prices of vaccines

Vaccinations are generally covered by Medicare and other insurance.

FIGURE 6. Vaccination is covered by either Medicare Part B or Part D, depending on the immunization.

| Part B (usually fully covered) | Part D (subject to deductibles and copayments) |
|---|---|
| <ul style="list-style-type: none"> • Influenza • Pneumovax • Prevnar | <ul style="list-style-type: none"> • Shingrix • Tetanus / pertussis |

FIGURE 7. Prices for vaccines recommended in older adults



Prices from goodrx.com, October 2020. Prices are the cost per one dose. Prices are a guide; patient costs will be subject to copays, rebates, and other incentives.

Key points

- **Immunization against influenza is vital for all patients, particularly those over 65**, especially during the Covid-19 pandemic. A high-dose or adjuvanted vaccine may be preferred when available.
- **Provide pneumococcal polysaccharide vaccine (Pneumovax, PPSV 23)** to all adults 65 and over.
- **Offer pneumococcal conjugate vaccine (Pneumovax, PCV 13)** to immunocompromised adults and those with chronic conditions.
- **Prevent shingles and postherpetic neuralgia** with the recombinant zoster vaccine (Shingrix).
- **Boost tetanus protection** with either Tdap or Td every 10 years.

Visit AlosaHealth.org/Immunizations
for links to a comprehensive evidence document and other resources.

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About this publication

These are general recommendations only; specific clinical decisions should be made by the treating clinician based on an individual patient's clinical condition. More detailed information on this topic is provided in a longer evidence document at AlosaHealth.org.



The Independent Drug Information Service (IDIS) is supported by the PACE Program of the Department of Aging of the Commonwealth of Pennsylvania.



This material is provided by **Alosa Health**, a nonprofit organization which is not affiliated with any pharmaceutical company. IDIS is a program of Alosa Health.

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