

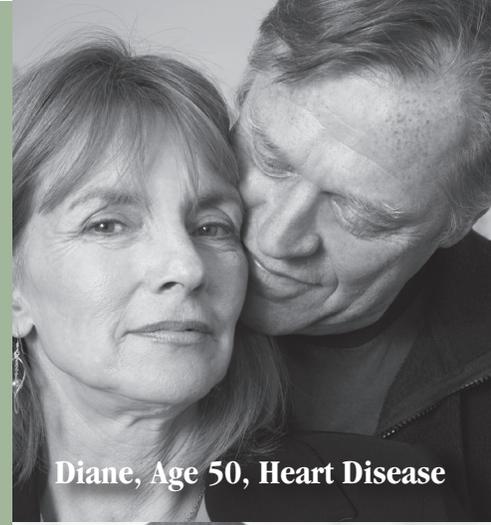
Call to Action:

Preventing Pneumococcal Disease in US Adults with Chronic Conditions

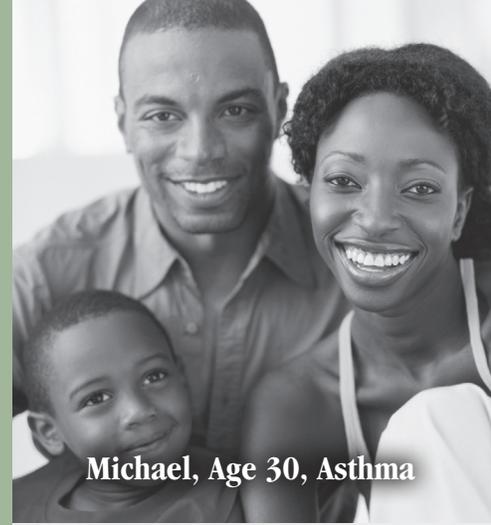
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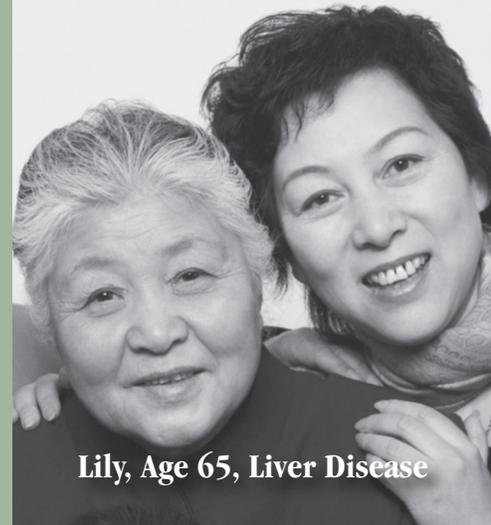
July 2015



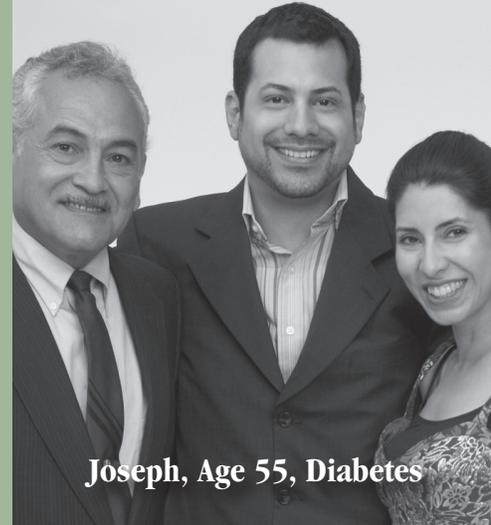
Diane, Age 50, Heart Disease



Michael, Age 30, Asthma



Lily, Age 65, Liver Disease



Joseph, Age 55, Diabetes

Preventing Pneumococcal Disease in US Adults with Chronic Conditions

Adults with chronic conditions are at increased risk for pneumococcal infection

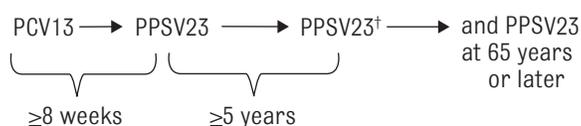
Pneumococcal disease can be dangerous, and sometimes fatal, in people with chronic medical conditions.¹⁻³ This may be true even when the chronic medical condition is well controlled with medication and/or lifestyle management. Pneumococcal vaccination needs to be used more consistently to reduce the risk of pneumococcal infection in these individuals.¹⁻³

Following approval of a conjugate pneumococcal vaccine (PCV13) for use in adults, the Centers for Disease Control and Prevention (CDC) updated the adult immunization schedule. CDC recommends both the conjugate vaccine and the pneumococcal polysaccharide vaccine (PPSV23) for adults age 19 to 64 years with certain health conditions, while continuing to recommend PPSV23 only for others (see Table 1 and Figure 1 for details).⁴

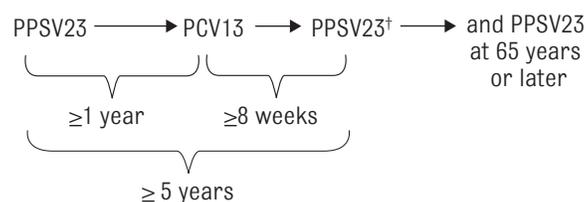
CDC also recommends both PCV13 and PPSV23 for all adults age 65 years and older.⁵ Please refer to Figure 2 on page 5 for additional information.

Figure 1: PCV13 and PPSV23 timing for US adults age 19 to 64 years with immunocompromising conditions, functional asplenia, CSF leaks, or cochlear implants*

Pneumococcal vaccine-naïve persons



Persons previously vaccinated with PPSV23



* See Table 1 for additional information

† This dose not indicated for adults with CSF leaks or cochlear implants

Vaccine coverage rates with PCV13 are not yet available, but coverage rates for PPSV23, which has been recommended for many years, show that too

Table 1: Pneumococcal vaccination recommendations: US adults age 19 to 64 years by risk group

Two pneumococcal vaccines are recommended by CDC for use in adults: a 13-valent pneumococcal conjugate vaccine (PCV13) and a 23-valent pneumococcal polysaccharide vaccine (PPSV23)

Risk Group	Underlying Medical Condition	PCV13	PPSV23	PPSV23 Revaccination
Immuno-compromised persons*	Congenital or acquired immunodeficiency†	✓	✓	✓
	HIV	✓	✓	✓
	Chronic renal failure	✓	✓	✓
	Nephrotic syndrome	✓	✓	✓
	Leukemia	✓	✓	✓
	Lymphoma	✓	✓	✓
	Hodgkin disease	✓	✓	✓
	Generalized malignancy	✓	✓	✓
	Iatrogenic immunosuppression**	✓	✓	✓
	Solid organ transplant	✓	✓	✓
	Multiple myeloma	✓	✓	✓
Persons with functional or anatomic asplenia*	Sickle cell disease/other hemoglobinopathy	✓	✓	✓
	Congenital or acquired asplenia	✓	✓	✓
Immuno-competent persons*	Cerebrospinal fluid leak	✓	✓	
	Cochlear implant	✓	✓	
Immuno-competent persons	Chronic heart disease‡		✓	
	Chronic lung disease§		✓	
	Diabetes mellitus		✓	
	Alcoholism		✓	
	Chronic liver disease, cirrhosis		✓	
	Cigarette smoking		✓	

CDC = Centers for Disease Control and Prevention

* See Figure 1 for timing of these doses

† Includes B- (humoral) or T-lymphocyte deficiency, complement deficiencies (particularly C1, C2, C3, and C4 deficiencies), and phagocytic disorders (excluding chronic granulomatous disease).

** Diseases requiring treatment with immunosuppressive drugs, including long-term systemic corticosteroids and radiation therapy.

‡ Including congestive heart failure and cardiomyopathies, excluding hypertension.

§ Including chronic obstructive pulmonary disease, emphysema, and asthma.

Source: CDC.PCV13 (pneumococcal conjugate) vaccine. cdc.gov/vaccines/vpd-vac/pneumo/vac-PCV13-adults.htm⁴

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few adults are getting vaccinated.⁶ Vaccination coverage in adults age 19 to 64 years with risk conditions is only 20 percent. Coverage rates are similar among non-Hispanic whites and blacks at about 21 percent, but lower in Hispanics (14 percent) and Asians (13 percent).

One reason for low vaccine coverage rates may be that too few healthcare professionals (HCPs) are recommending pneumococcal vaccination. In a survey of 100 physicians and 100 physician assistants, nurse practitioners, or registered nurses, fewer than 30 percent of physicians and 20 percent or fewer of the other HCPs reported recommending pneumococcal vaccination for patients with a risk condition.⁷

This is troubling because an HCP recommendation is the greatest vaccination motivator for patients.⁸ Even patients who knew about pneumococcal vaccination reported skipping it because their physician did not tell them to get vaccinated.⁷

Increasing pneumococcal vaccination rates will take multiple strategies, and all HCPs—physician specialists as well as generalists, nurses, pharmacists, and others—share the responsibility for ensuring at-risk patients are protected.

Multidisciplinary Task Force: Four main barriers to vaccination in adults with chronic conditions

The National Foundation for Infectious Diseases (NFID) brought together a task force of HCPs and consumer educators representing more than 20 organizations to prioritize barriers to pneumococcal vaccination among US adults and to identify solutions. Task force members identified the following as the greatest barriers to pneumococcal vaccine uptake in adults with chronic health conditions:

- Competing priorities during patient visits
- Lack of ownership among HCPs for educating and vaccinating adults
- Challenges in determining vaccination status
- Complexity of recommendations for vaccination and revaccination

Competing Priorities: Developing systems can help pave the way for vaccination

Vaccination may not be considered during most visits because acute problems and other ongoing concerns

The Impact of Pneumococcal Disease

Pneumococcal disease is a very serious infection that causes pneumonia, meningitis, and bloodstream infection.¹ There are an estimated four million cases of community-acquired pneumonia in the US annually and up to 30 percent (more than 1 million) are caused by pneumococcal disease.¹⁻³ Pneumococcal pneumonia is associated with death rates of 5 to 7 percent and even higher rates in people age 65 years and older.¹ Pneumococcal meningitis and sepsis are less common (tens of thousands of cases annually), but even more deadly.

directly related to the underlying condition are priorities for both patient and professional. This is a significant lost opportunity for HCPs to have a positive impact. Ideally, pneumococcal vaccines should be stocked and administered in any healthcare setting where high-risk patients are treated, including private practices, clinics, and hospitals. Professionals in settings where vaccination is not available should educate patients and refer them to a place in the community where they can be vaccinated.

Healthcare practices should consider all possible strategies to improve vaccine delivery. For example, practices can:

- Implement standing orders programs.
- Use screening tools at check-in to determine whether adults need pneumococcal vaccination.
- Include prompts, flags, notations, or standardized checklists in charts and electronic medical records (EMRs) to remind HCPs about the importance of pneumococcal vaccination for high-risk adults when they are seeing patients.
- Equip check-out staff with information to refer patients to venues for vaccination, such as primary care practices, local health departments, or pharmacies.
- Display educational materials (e.g., posters, fact sheets) in offices to prompt patients to ask about vaccination during their visit.
- Educate patients through practice websites, newsletters, on-hold/voicemail scripts, or other communications.

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- Link pneumococcal prevention efforts with annual flu vaccination activities.
- Encourage patients who participate actively in their disease management to make pneumococcal and other adult vaccines (e.g., influenza, Tdap, hepatitis B, shingles, HPV, etc.) part of their wellness program as appropriate.
- Engage multiple professionals in vaccination activities (discussed further below).

Lack of Ownership: Everyone on the healthcare team has a role in vaccination efforts

Through practice visits, hospital stays, and regular trips to a pharmacy for medication, adults with chronic conditions may interact with any number of professionals, including physicians, nurse practitioners, nurses, ancillary clinicians, pharmacists, physician assistants, public health nurses, and clerical staff. Every one of these professionals can play a role in pneumococcal prevention efforts.

- **All HCPs** can educate patients and their caregivers and *strongly urge* patients to receive pneumococcal and other adult vaccines.
- **Physicians** can drive the implementation of systems in their practices to assure vaccination of all eligible at-risk patients.
- **Physician assistants** and **nurse practitioners** can prescribe and administer vaccines, and along with **nurses**, they can identify and educate patients in need of vaccination, anticipate and address patient questions or concerns, and lead in-office efforts to use educational materials like posters, signs, and fliers.
- **Specialists** can screen, educate, and refer patients to venues for vaccination.
- **Pharmacists**, where authorized, can administer pneumococcal vaccine to recommended adults. In other cases, pharmacists may be able to mention pneumococcal vaccination as a preventive health measure to patients filling prescriptions for medications commonly used to treat chronic conditions.
- **Public health professionals** can educate community members, and where possible, offer pneumococcal vaccination or arrange for vaccination opportunities elsewhere in the community.

- **Support staff** in any healthcare setting can be given ownership of important prevention activities, particularly patient screening, notification, and chart preparation with reminder materials for clinical staff.
- **Hospital staff** can advocate for and/or implement standing orders programs and make sure EMRs reflect needed vaccines.

Professional associations can also support pneumococcal prevention by:

- Listing pneumococcal and other adult vaccines in the clinical guidelines for the treatment of individuals with chronic health conditions.
- Publicizing the inclusion of vaccines in the guidelines.
- Educating members about pneumococcal prevention.
- Adding pneumococcal vaccination to accountability measures.

Vaccination Status: Better documentation can support increased vaccination rates

Patients with chronic conditions might receive pneumococcal vaccination in any number of healthcare settings, and they are not always able to recall whether they have been vaccinated. In the absence of a record, professionals may hesitate to vaccinate, though CDC recommends that vaccination should be given when an adult's status is uncertain.⁹ Activities that improve record keeping can help support increased vaccination rates:

- Use EMRs or paper-based trackers developed for adult vaccines to keep an office record of patient vaccinations.
- Check to see if your state's Immunization Information System (IIS or immunization registry) keeps records of adult vaccinations. If it does not, ask that your professional society advocates that it does so.
- Encourage patients to keep their own records by:
 - Including information about recommended vaccines, including administration dates, on medication cards carried by patients with chronic conditions.
 - Providing patients with a paper-based or electronic file they can keep at home and bring with them to appointments, such as NFID's Adult Vaccination Tracker (adultvaccination.org/adult-tracker).

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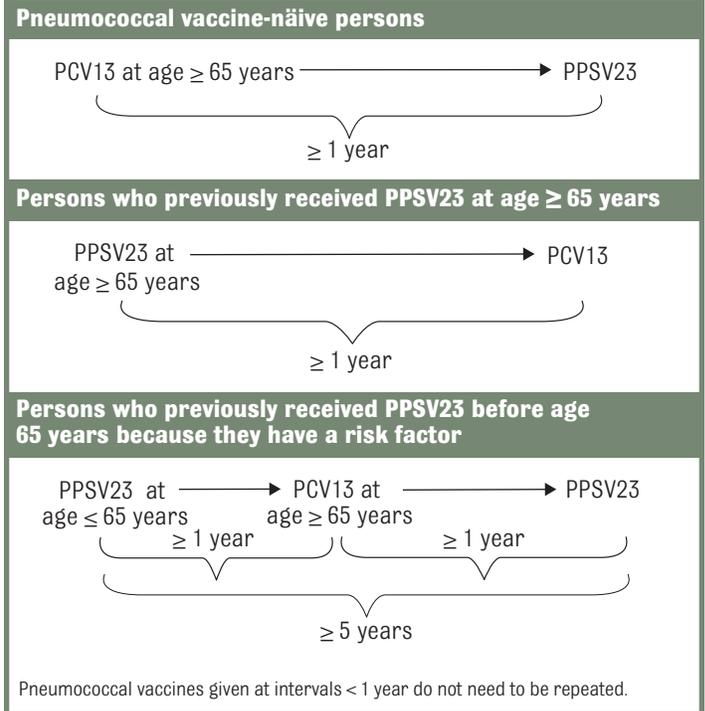
Pneumococcal Vaccination in US Adults Age 65 Years and Older

Approval of the pneumococcal conjugate vaccine (PCV13) for use in US adults provided an opportunity to improve pneumococcal protection for those age 65 years and older. CDC recommends both PCV13 and PPSV23 for adults in this age range.⁵

Although the age-based recommendation makes it easy to identify who needs to be vaccinated, there are some considerations for timing of doses that can be challenging. Figure 2 provides guidance for pneumococcal vaccination for those 65 years and older based on their previous pneumococcal vaccination history.

Medicare provides coverage for both pneumococcal vaccines for those age 65 years and older as long as they are given at least 11 months apart.

Figure 2: PCV13 and PPSV23 timing for US adults age 65 years and older



Complexity of Recommendations: Teaching tools and chart-based prompts can help

NFID has developed Pneumococcal Vaccination Resources to help practices improve adult pneumococcal vaccination rates and promote patient education among adults in their care. These include ready-to-use and template resources for HCP and patient education, screening and tracking forms, and links to information about standing orders programs. To access the toolkit, visit:

adultvaccination.org/professional-resources/pneumo.

More than 20 medical and health organizations served on or supported the pneumococcal disease task force and helped shape the content of the meeting described in this document. The complete list of supporting organizations is available at: adultvaccination.org/professional-resources/orgs

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