

Pneumococcal Disease Call to Action

Overcoming Disparities in Pneumococcal Disease Vaccination among US Adults

A Task Force Report

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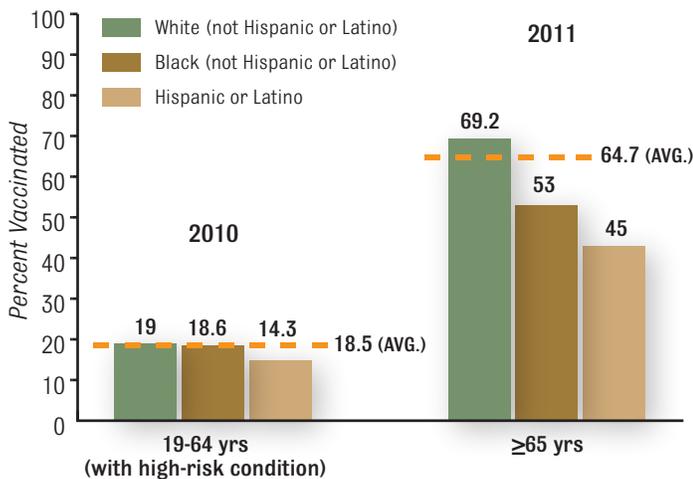


Disparities in vaccination coverage leave too many African American and Hispanic adults at risk for pneumococcal infection.

Pneumococcal disease can have a serious individual and public health impact (see boxes for more information).¹⁻³ Despite this, pneumococcal vaccination rates for all indicated US adults fall well below public health goals. Gaps in vaccination coverage coupled with a higher prevalence of chronic medical conditions place a larger burden of pneumococcal illness on African American and Hispanic adults, which is of great concern.

Pneumococcal vaccination rates for African American and Hispanic adults age 65 and older are 16 percent and 24 percent lower, respectively, compared with non-Hispanic whites.⁴ There is also a considerable gap for younger at-risk Hispanic adults where vaccine coverage is about 5 percent lower than in age-matched whites (Figure 1).⁵

Figure 1
Pneumococcal Vaccination Rates in US Adults



Sources: CDC. National Health Interview Survey, 2011.⁴ CDC. Adult vaccination coverage, 2010.⁵

The reasons for gaps in vaccination coverage are complex. Awareness of pneumococcal disease and vaccine availability is low among all US adults. But some vaccination barriers that exist in the general public may be heightened among African American and Hispanic populations, including vaccine or medical system distrust, and challenges in continuity of, or access to, culturally competent care.

Lower vaccination rates are compounded by an increased prevalence of pneumococcal risk conditions in African

Annual Public Health Burden of Pneumococcal Disease in the US

- **Pneumococcal bacteremia:** 50,000 cases annually, case-fatality rate about 20 percent.¹
 - Includes 25-30 percent of pneumococcal pneumonia cases that progress to bacteremia.
- **Pneumococcal meningitis:** 3,000 to 6,000 cases annually; case-fatality rate about 30 percent.¹
- **Pneumococcal pneumonia:** 175,000 people hospitalized each year; case-fatality rate of 5-7 percent.¹
 - Patients hospitalized with pneumococcal pneumonia are at increased risk for concurrent cardiac events, such as myocardial infarction, arrhythmia, or congestive heart failure.²

The Considerable Costs of Pneumococcal Disease

- In 2004, pneumococci caused an estimated 4 million illness episodes resulting in direct medical costs (inpatient and outpatient) of \$3.5 billion.³
 - About half of these costs (\$1.8 billion) were related to care of patients age 65 years and older, many of whom have chronic health problems.³
- Factoring in lost work and productivity, costs related to pneumococcal infections in younger working adults nearly equal those for the older population.³

American and Hispanic adults, who are more likely to have chronic medical conditions such as asthma, diabetes, and cardiovascular disease and stroke.⁶⁻⁹ In addition, invasive pneumococcal disease disproportionately affects African Americans with a case rate of 21.6 per 100,000 compared to 12.8 for whites.¹⁰

Closing these gaps and increasing pneumococcal vaccination rates among African American and Hispanic adults will require multiple strategies involving the healthcare community, public health advocacy, and grass-roots efforts within these communities.

A multidisciplinary task force identified barriers to better immunization in populations with disparities.

The National Foundation for Infectious Diseases (NFID) brought together a task force of healthcare professionals, public health officials, and consumer educators representing more than 20 organizations to prioritize barriers to pneumococcal vaccination among US adults and to identify solutions. Attendees participated in large group discussions and smaller working sessions that focused on specific patient populations.

One working group focused on defining and overcoming barriers in populations with immunization disparities, including Hispanic and African American communities. Task force members identified the following key barriers to be addressed in closing vaccination gaps:

- Lack of public awareness about pneumococcal disease and available prevention
- General distrust of vaccines and government/medical systems
- Challenges in continuity of care and access to a primary care provider

Many barriers and their solutions are issues for all adult populations, but several may be of elevated importance in some African American or Hispanic communities.

Strategies should be tailored by healthcare and public health professionals according to the needs of their local community.

Lack of Public Awareness: Educating patients and caregivers inside and outside the practice can help increase vaccination rates.

Four out of five US adults don't know about pneumococcal disease.¹¹ Clearly, more education about the disease is needed if people are going to understand and accept the need to protect themselves through vaccination. All healthcare providers should assume responsibility for informing patients and advocating strongly for vaccination and public health officials need to reinforce the messages at the community level. The following strategies can support increasing disease and prevention awareness:

- Learn about the community you are trying to reach, including language needs, health literacy-level considerations, cultural sensitivities, and health motivators.

- Gain an understanding of how best to deliver disease and prevention information for this community, eg, in-person verbal vs. written communication; best modes of mass communication, and use of social media; in collaboration with trusted community leaders.
- Use culturally competent, strategically relevant messages to educate patients and family members, developed in conjunction with community members, if possible.
- Provide information to patients and the public in simple, compelling, easy to understand language in written and verbal communications.
- Tell stories that motivate patients and the community to receive pneumococcal and other needed vaccines by illustrating the impact of the diseases; consider the messages that may be most meaningful within the culture of the particular community.
- Provide information for non-English speakers in their native language when needed.
- Inform vaccine recipients about Medicare and Medicaid coverage of pneumococcal vaccine both individually and through larger efforts if possible, such as posters that are seen by everyone (placed on public buses, trains, libraries, community-based organization bulletin boards/websites, etc).

Patient education should consider language needs, cultural sensitivities, and preferred mediums of communication for the community being served. In addition, identifying unique messages that motivate members of a particular community can help ensure disease and prevention messages resonate. For example, if commitment to family is paramount in the community, providers and public health officials could emphasize that pneumococcal vaccination can help prevent serious disease that makes it difficult to care for the family. A story about a patient who was sick for weeks and could not take care of his or her children, spouse, or elderly parents might be a strong motivator for pneumococcal vaccination.

Pneumococcal disease and prevention messages can be complicated and literacy-level considerations are important when educating adults in any community. Keep information simple and easy-to-understand and make recommendations strong and direct. Consider delivering messages in bullet format so that key points are easily seen and heard.

In Hispanic communities where English is limited among adults, it's ideal for Spanish-speaking healthcare professionals to serve the community and address vaccination topics. When this is not possible, a professional translator can provide assistance. However, some healthcare professionals still report situations where family members, including children, are asked to interpret health information. Although this is not ideal, it underscores the need to present information as simply and directly as possible. Identify certified language interpreters in the community or consider telephone line interpreter services.

Adults with limited financial resources may hesitate to accept vaccination if they are not aware that it is covered by Medicare and Medicaid for those at risk, making it important to include this information in discussions and on posters viewed by all.^{12,13}

Vaccine and Medical System Distrust: Resources outside the medical setting can help with education and vaccination efforts.

In some communities, there is a heightened sense of distrust of vaccines or the medical system. The following strategies can help alleviate distrust and reinforce the value of vaccines for disease prevention:

- Discuss the importance of pneumococcal prevention with patients, address any concerns about the efficacy or safety of the vaccine, and provide a strong recommendation for vaccination, providing studies to patients where appropriate.
- At the community level, engage and educate trusted community leaders (clergymen, disc jockeys, TV anchors, local celebrities, community health workers, nurses, teachers, etc) to help deliver messages in culturally meaningful venues such as faith-based organizations, community-based organizations, and community centers.
- Reach out to radio stations and other news outlets that reach these community members and ask them to help spread the word.
- Look for partnership opportunities with local initiatives that reach adults with pneumococcal risk factors (senior groups, youth groups that can spread the message to relatives at risk, worksite wellness programs of large employers in communities, etc).

Although distrust of the medical community at large exists, studies suggest that African American adults value one-on-one discussion with their personal physicians when considering health decisions, and physicians and other medical professionals are the most common source of health and medical information for Hispanics.^{14,15} Cultural competency in providing care must go beyond providing culturally sensitive, translated materials and include discussion with the physician and/or other medical professionals that reinforces the value of prevention.

Engaging community leaders to help share information can bolster the strength of prevention messages. Where access to healthcare is limited, a useful approach is to bring healthcare information to the people. Information delivered by a trusted member of the community in a culturally meaningful manner might be an impetus for seeking vaccination.

Other opportunities within the community may exist through partnerships with organizations that are addressing other important healthcare issues. Examples include a diabetes control or heart disease screening program centered within a community that also has immunization rate disparities.

Continuity of Care and Access: Healthcare professionals and public health departments can increase their role in prevention efforts.

Healthcare professionals in all settings should do their part to help at-risk patients (ie, those included in CDC recommendations, Table 1 on next page)^{16,17} receive pneumococcal vaccination. In communities where continuity of care and access to primary care providers is an issue, healthcare professionals need to be vigilant and see every interaction with an at-risk patient as an opportunity to vaccinate or refer them to sources where vaccination is available.

- **All healthcare professionals** can educate patients and *strongly urge* them to receive pneumococcal and other adult vaccines.
- **Public health officials** can educate community members, and where possible, offer pneumococcal and other adult vaccines or arrange for vaccination opportunities elsewhere in the community.
- **Physicians** can drive implementation of systems in their practices to promote vaccinating all at-risk patients.

- **Physician assistants** and **nurse practitioners** can prescribe and administer vaccines, and along with **nurses**, they can identify and educate at-risk patients and their families, anticipate and address questions or concerns, and lead in-office efforts to use educational materials like posters, signs, and flyers.
- **Specialists** can screen, educate, and vaccinate or refer patients to venues for vaccination.
- **Pharmacists**, where authorized, can deliver pneumococcal vaccine to recommended adults and can mention or *strongly urge* patients to receive pneumococcal vaccination based on their birth date, their use of Medicare, or their need for medications commonly used to treat chronic conditions.
- **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 electronic medical records (EMRs) reflect needed vaccines. The Joint Commission has included pneumococcal vaccination as a 2012 performance measure,¹⁸ and the potential effect on accreditation may be a strong motivator for compliance.

Multiple strategies will be needed to improve pneumococcal vaccination rates; resources are available to support these efforts.

NFID has a Pneumococcal Disease Professional Practice Toolkit available with tools and materials to help practices improve adult pneumococcal vaccination rates and promote education among adults in their care. These include ready-to-use and template resources for healthcare professional and patient education, screening and tracking forms, and links to information about standing orders programs. Materials are available in English and Spanish, and language is provided for professionals to tailor materials to address specific risks and disparities in their communities. To access the toolkit, visit: Adultvaccination.org/Pneumotools.

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. Click [here](#) to see a full list.

Table 1
Recommendations for Use of Pneumococcal Polysaccharide Vaccine

All adults age ≥ 65 years

Adults 19 through 64 years with:

- Chronic medical conditions (eg, cardiovascular disease or stroke; liver, kidney or lung disease, including asthma; diabetes; sickle cell disease; alcoholism)
- Immunocompromising conditions (eg, lymphoma or leukemia, damaged or no spleen) or treatments (eg, steroids, radiation therapy)
- HIV/AIDS
- Environments with increased risk (eg, nursing homes)
- Cochlear implant or leaks of cerebrospinal fluid

Adults age 19 through 64 years who smoke cigarettes

Footnotes

Most adults only need to be vaccinated once in their lifetime, but some will need revaccination.

The US Food and Drug Administration recently approved a 13-valent pneumococcal conjugate vaccine (PCV13) for use in adults age 50 years and older. The CDC's Advisory Committee on Immunization Practices has not yet provided guidance for the use of PCV13 in adults.

Pneumococcal vaccines are contraindicated in anyone who has had a severe (ie, anaphylactic) reaction to a previous dose or to any component of the vaccine or to any diphtheria toxoid-containing vaccine (for conjugate vaccine only).

For more information, visit www.cdc.gov/vaccines.

Sources: CDC. *MMWR*. 2010;59(34):1102-1106.¹⁶ CDC. Chart of Contraindications and Precautions to Commonly Used Vaccines.¹⁷

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