

# Improving Adult Immunization Rates: Resources and Ideas for Medicare Providers

A Webinar from NAIIS Provider Workgroup  
in Support of QIN-QIOs

Susan Farrall and Aparna Ramakrishnan



# Goals of Presentation

**To offer useful tips, resources and lessons learned for Medicare providers who seek to:**

- ❑ Make the assessment of their patients' immunization status more routine**
- ❑ Improve immunization rates of their Medicare patients**
- ❑ Increase documentation of their patients' immunization status in immunization registries.**

# National Adult and Influenza Immunization Summit

- ❑ **This presentation: From the Provider Workgroup, one of five workgroups of the NAIIS.**
- ❑ **A synthesis of best practices, lessons learned and resources coming the workgroup members.**
- ❑ **Our Workgroup’s Mission: How to make vaccines a “winning proposition” for healthcare providers.**

# National Adult and Influenza Immunization Summit.

- ❑ **Summit annual meeting in Atlanta, May 10 to 12, 2016.**
- ❑ **Summit awards, including publication award**
- ❑ **Best practices highlighted**
- ❑ **[www.izsummitpartners.org](http://www.izsummitpartners.org)**

# Let's hear from you:

## ***RE: Adult Immunization***

*How is this progressing?*

*What are your challenges ?*

# Segments of the Webinar

- ❑ **Burden of Vaccine-Preventable Diseases in Adults.**
- ❑ **Assessing the Immunization Needs of Your Patients**
- ❑ **Talking with Your Patients About Vaccines: Resources and Lessons Learned**
- ❑ **Increasing Immunization Rates: Resources and Lessons Learned**

# Burden of Disease among Adults from Vaccine-Preventable Diseases

# Burden of Disease Among U.S. Adults for Diseases with Vaccines Available

- ❑ **Influenza disease burden varies year to year**
  - Millions of cases and average of 226,000 hospitalizations annually with >75% among adults<sup>1</sup>
  - 3,000-49,000 deaths annually, >90% among adults<sup>2</sup>
- ❑ **Invasive pneumococcal disease (IPD)<sup>3</sup>**
  - 39,750 total cases and 4,000 total deaths in 2010
    - 86% of IPD cases and nearly all IPD deaths among adults
- ❑ **Pertussis (also known as whooping cough)<sup>4</sup>**
  - ~28,000 cases per year for 2013 and 2014
    - ~9,000 among adults
- ❑ **Hepatitis B<sup>5</sup>**
  - 3,350 acute cases reported 2010
    - 35,000 estimated cases
- ❑ **Zoster (also known as shingles)<sup>6</sup>**
  - About 1 million cases of zoster annually U.S.

1. Thompson WW, et al. Influenza-Associated Hospitalizations in the United States. JAMA 2004; 292: 1333-1340
2. CDC. Estimates of deaths associated with seasonal influenza – United States, 1976-2007. MMWR. 2010;59(33):1057-1062.
3. CDC. Active Bacterial Core Surveillance. <http://www.cdc.gov/abcs/reports-findings/survreports/spneu10.pdf>.
4. CDC. Notifiable Diseases and Mortality Tables. MMWR 2013. 61(51&52): ND-719 – ND 732.
5. CDC. Viral Hepatitis Surveillance United States, 2010. National Center for HIV/AIDS, Viral Hepatitis, STD& TB Prevention/Division of Viral Hepatitis.
6. CDC. Prevention of Herpes Zoster. MMWR 2008. 57(RR-5): 1-30.

# Influenza costs lives and money

- **Direct medical costs in U.S.: ~\$10.4 billion**
- **Add in loss of work and life: ~\$87 billion**
- **Vaccination (41% in 2013-14) prevented:**
  - 7+ million illnesses
  - 3+ million medically-attended illnesses
  - 90,000+ hospitalizations

# Key Adult Immunization Facts

## ❑ Challenges

- Vaccine coverage among adults is unacceptably low
- Limited patient awareness about need for vaccines among adults
- Adult vaccinations less integrated into clinical practice

## ❑ Opportunities

- Most patients willing to get vaccinated when recommended by medical providers
- Primary care providers believe that immunizations are an important part of the services they provide to patients
- Systematic offering and recommendations from clinicians result in higher uptake

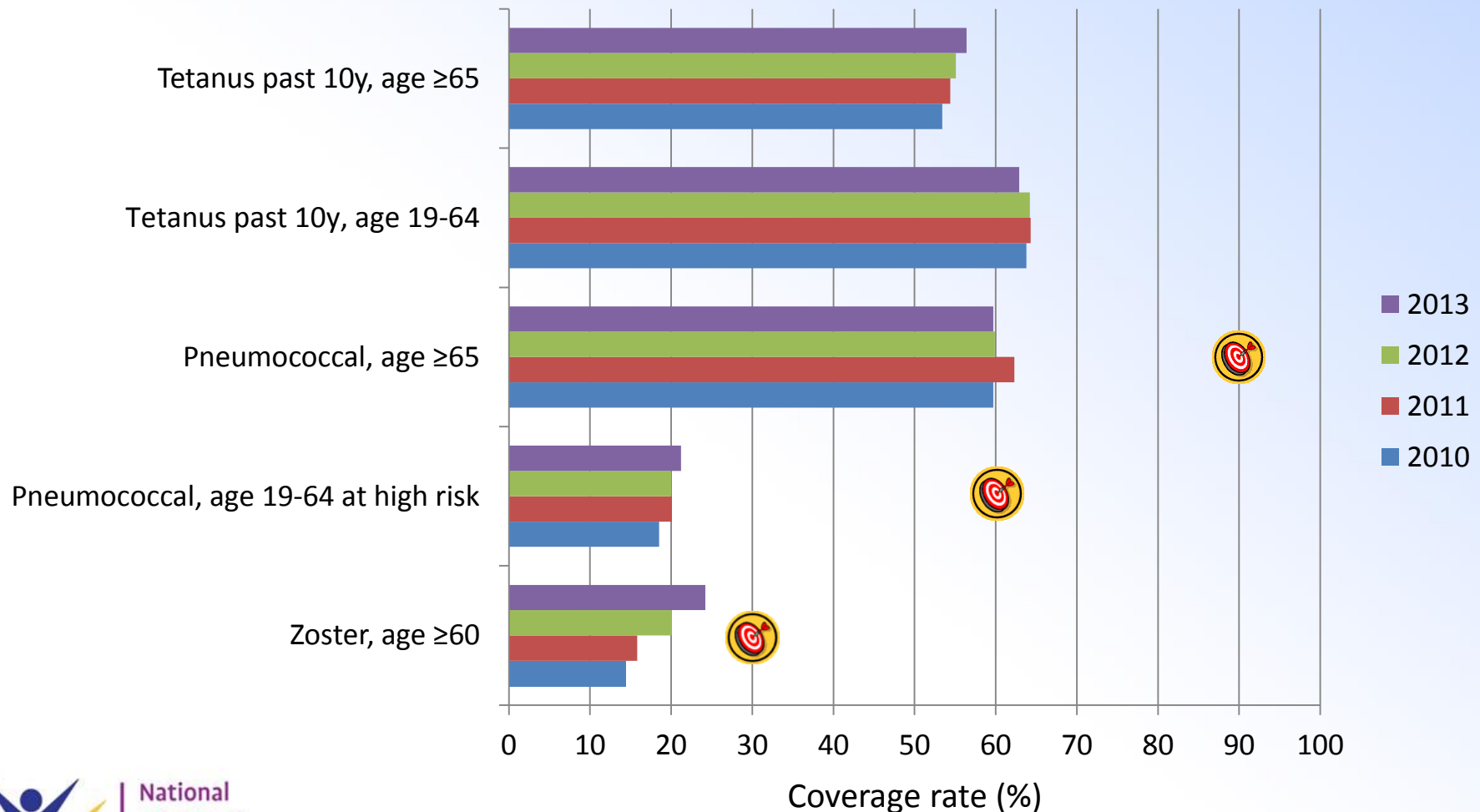


- Hurley, et al. Annals of Internal Medicine, 2014.
- Guide to community preventive services: [www.thecommunityguide.org/vaccines/index.html](http://www.thecommunityguide.org/vaccines/index.html)
- Adult non-influenza vaccine coverage: [www.cdc.gov/mmwr/preview/mmwrhtml/mm6305a4.htm](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6305a4.htm).

# Vaccination Coverage Rates



# Adult Immunization Coverage Rates 2010 - 2013



Source: National Health Interview Surveys

: Healthy People 2020 target

# Disparities In Adult Immunization Rates

- ❑ Lower vaccine coverage among<sup>1</sup>
  - Hispanics and African Americans compared to non-Hispanic Caucasians
  - Uninsured
  - Lower incomes
- ❑ Disparities in zoster vaccination among older adults: Increasing
- ❑ For newly insured adults
  - Affordable Care Act (ACA) requires non-grandfathered private plans to include coverage for ACIP-recommended vaccines
  - Especially important to conduct assessment among newly insured

# Assessing Vaccination Status: Which Vaccines Does My Patient Need?

# Recommended Adult Vaccines


## Recommended Adult Immunization Schedule—United States - 2015


Note: These recommendations must be read with the footnotes that follow containing number of doses, intervals between doses, and other important information.

Figure 1. Recommended adult immunization schedule, by vaccine and age group<sup>1</sup>

VACCINE ▼	AGE GROUP ►	19-21 years	22-26 years	27-49 years	50-59 years	60-64 years	≥ 65 years
Influenza <sup>2,2</sup>		1 dose annually					
Tetanus, diphtheria, pertussis (Td/Tdap) <sup>3,3</sup>		Substitute 1-time dose of Tdap for Td booster; then boost with Td every 10 yrs					
Varicella <sup>4</sup>		2 doses					
Human papillomavirus (HPV) Female <sup>5,5</sup>		3 doses					
Human papillomavirus (HPV) Male <sup>5,5</sup>		3 doses					
Zoster <sup>6</sup>						1 dose	
Measles, mumps, rubella (MMR) <sup>7,7</sup>		1 or 2 doses					
Pneumococcal 13-valent conjugate (PCV13) <sup>8,8</sup>		1-time dose					
Pneumococcal polysaccharide (PPSV23) <sup>8</sup>		1 or 2 doses					1 dose
Meningococcal <sup>9,9</sup>		1 or more doses					
Hepatitis A <sup>10,10</sup>		2 doses					
Hepatitis B <sup>11,11</sup>		3 doses					
<i>Haemophilus influenzae</i> type b (Hib) <sup>12,12</sup>		1 or 3 doses					

\*Covered by the Vaccine Injury Compensation Program

 For all persons in this category who meet the age requirements and who lack documentation of vaccination or have no evidence of previous infection; zoster vaccine recommended regardless of prior episode of zoster

 Recommended if some other risk factor is present (e.g., on the basis of medical, occupational, lifestyle, or other indication)

 No recommendation

Report all clinically significant postvaccination reactions to the Vaccine Adverse Event Reporting System (VAERS). Reporting forms and instructions on filing a VAERS report are available at [www.vaers.hhs.gov](http://www.vaers.hhs.gov) or by telephone, 800-822-7967.

Information on how to file a Vaccine Injury Compensation Program claim is available at [www.hrsa.gov/vaccinecompensation](http://www.hrsa.gov/vaccinecompensation) or by telephone, 800-338-2382. To file a claim for vaccine injury, contact the U.S. Court of Federal Claims, 717 Madison Place, N.W., Washington, D.C. 20005; telephone, 202-357-6400.

Additional information about the vaccines in this schedule, extent of available data, and contraindications for vaccination is also available at [www.cdc.gov/vaccines](http://www.cdc.gov/vaccines) or from the CDC-INFO Contact Center at 800-CDC-INFO (800-232-4636) in English and Spanish, 8:00 a.m. - 8:00 p.m. Eastern Time, Monday - Friday, excluding holidays.

Use of trade names and commercial sources is for identification only and does not imply endorsement by the U.S. Department of Health and Human Services.

The recommendations in this schedule were approved by the Centers for Disease Control and Prevention's (CDC) Advisory Committee on Immunization Practices (ACIP), the American Academy of Family Physicians (AAFP), the American College of Physicians (ACP), American College of Obstetricians and Gynecologists (ACOG) and American College of Nurse-Midwives (ACNM).



National  
Adult and  
Influenza  
Immunization  
Summit


[www.cdc.gov/vaccines/schedules/hcp/adult.html](http://www.cdc.gov/vaccines/schedules/hcp/adult.html)


# Recommended Adult Vaccines


Figure 2. Vaccines that might be indicated for adults based on medical and other indications<sup>1</sup>

VACCINE ▼	INDICATION ►	Pregnancy	Immuno-compromising conditions (excluding human immunodeficiency virus [HIV]) <sup>4,6,7,8,13</sup>	HIV Infection CD4+ T lymphocyte count <sup>4,6,7,8,13</sup>		Men who have sex with men (MSM)	Kidney failure, end-stage renal disease, receipt of hemodialysis	Heart disease, chronic lung disease, chronic alcoholism	Asplenia (including elective splenectomy and persistent complement component deficiencies) <sup>8,12</sup>	Chronic liver disease	Diabetes	Healthcare personnel
			< 200 cells/μL	≥ 200 cells/μL								
Influenza* <sup>2</sup>			1 dose IIV annually			1 dose IIV or LAIV annually	1 dose IIV annually					1 dose IIV or LAIV annually
Tetanus, diphtheria, pertussis (Td/Tdap)* <sup>3</sup>		1 dose Tdap each pregnancy	Substitute 1-time dose of Tdap for Td booster; then boost with Td every 10 yrs									
Varicella* <sup>4</sup>			Contraindicated		2 doses							
Human papillomavirus (HPV) Female* <sup>5</sup>			3 doses through age 26 yrs			3 doses through age 26 yrs						
Human papillomavirus (HPV) Male* <sup>5</sup>			3 doses through age 26 yrs			3 doses through age 21 yrs						
Zoster <sup>6</sup>			Contraindicated		1 dose							
Measles, mumps, rubella (MMR)* <sup>7</sup>			Contraindicated		1 or 2 doses							
Pneumococcal 13-valent conjugate (PCV13)* <sup>8</sup>								1 dose				
Pneumococcal polysaccharide (PPSV23) <sup>9</sup>								1 or 2 doses				
Meningococcal* <sup>9</sup>								1 or more doses				
Hepatitis A* <sup>10</sup>								2 doses				
Hepatitis B* <sup>11</sup>								3 doses				
<i>Haemophilus influenzae</i> type b (Hib)* <sup>12</sup>			post-HSCT recipients only		1 or 3 doses							

\*Covered by the Vaccine Injury Compensation Program

 For all persons in this category who meet the age requirements and who lack documentation of vaccination or have no evidence of previous infection; zoster vaccine recommended regardless of prior episode of zoster

 Recommended if some other risk factor is present (e.g., on the basis of medical, occupational, lifestyle, or other indications)

 No recommendation



U.S. Department of Health and Human Services  
Centers for Disease Control and Prevention

These schedules indicate the recommended age groups and medical indications for which administration of currently licensed vaccines is commonly recommended for adults ages 19 years and older, as of February 1, 2015. For all vaccines being recommended on the Adult Immunization Schedule: a vaccine series does not need to be restarted, regardless of the time that has elapsed between doses. Licensed combination vaccines may be used whenever any components of the combination are indicated and when the vaccine's other components are not contraindicated. For detailed recommendations on all vaccines, including those used primarily for travelers or that are issued during the year, consult the manufacturers' package inserts and the complete statements from the Advisory Committee on Immunization Practices ([www.cdc.gov/vaccines/hcp/acip-recs/index.html](http://www.cdc.gov/vaccines/hcp/acip-recs/index.html)). Use of trade names and commercial sources is for identification only and does not imply endorsement by the U.S. Department of Health and Human Services.

National Adult and Influenza Immunization Summit

[www.cdc.gov/vaccines/schedules/hcp/adult.html](http://www.cdc.gov/vaccines/schedules/hcp/adult.html)

# Good Starting Point: Adult Immunization Quiz

CDC offers an online quiz for patients:

<http://www2.cdc.gov/nip/adultimmsched/>

## Adolescent and Adult Vaccine Quiz

### What Vaccines do **YOU** need?

Did you know that certain vaccines are recommended for adults and adolescents. Get more information for people age 11 years and older.

#### Instructions:

1. Complete the quiz.
2. Get a list of vaccines you may need (*this list may include vaccines you may not need*).
3. Discuss the vaccines with your doctor or healthcare professional.

#### Part One, About You

1. Are you  
 Female  Male
2. For women only (Some vaccines can affect pregnancy.)  
 I could become pregnant  I am pregnant now


# Patient Intake Tool

This CDC tool will help you assess the immunization needs of your adult patients.

Please take a moment to fill out the questionnaire below to help us determine which vaccines may be recommended for you based on your specific health status, age, and lifestyle. Keep in mind that this list may not include every vaccine you need.

Check all that apply to you	Let's discuss these recommended vaccines
<input type="checkbox"/> I am 19 years or older	<ul style="list-style-type: none"> <li>Seasonal Flu (Influenza) vaccine every year</li> <li>Tetanus (Td) vaccine every 10 years</li> <li>One time dose of whooping cough (Tdap) vaccine for all adults who have never received Tdap vaccine</li> </ul> <p><b>PREGNANT WOMEN SHOULD GET A TDAP VACCINE DURING EACH PREGNANCY</b></p>
<input type="checkbox"/> I am 60 years or older	<ul style="list-style-type: none"> <li>Shingles (Zoster) vaccine*</li> </ul>
<input type="checkbox"/> I am 65 years or older	<ul style="list-style-type: none"> <li>Both types of pneumococcal vaccines (one dose of conjugate first, then one dose of polysaccharide 6-12 months later)</li> </ul>
<input type="checkbox"/> I didn't receive the Human papillomavirus (HPV) vaccine series as a child	<ul style="list-style-type: none"> <li>HPV vaccine series (3 dose series)                             <ul style="list-style-type: none"> <li>Female age 26 or younger</li> <li>Male age 21 or younger</li> <li>Male age 22-26 who has sex with men, who has a weakened immune system, or who has HIV</li> </ul> </li> </ul>
<input type="checkbox"/> I was born in the US in 1957 or after and don't have immunity against measles, mumps, and rubella	<ul style="list-style-type: none"> <li>Measles, mumps, rubella (MMR) vaccine* (one dose)</li> </ul>
<input type="checkbox"/> I was born in the US in 1980 or after and don't have immunity against chickenpox	<ul style="list-style-type: none"> <li>Varicella "chickenpox" vaccine*</li> </ul>
<input type="checkbox"/> I am a healthcare worker	<ul style="list-style-type: none"> <li>Hepatitis B vaccine series</li> <li>Measles, mumps, rubella (MMR) vaccine*</li> <li>Varicella "chickenpox" vaccine*</li> </ul>
<input type="checkbox"/> I have heart disease, asthma or chronic lung disease	<ul style="list-style-type: none"> <li>Pneumococcal polysaccharide vaccine</li> </ul>

Flip page to continue questionnaire →



U.S. Department of Health and Human Services  
Centers for Disease Control and Prevention

# Examples of Assessment Tools

Patient vaccine needs- assessment form from Immunization Action Coalition at immunize.org. Consider Health, Age, Lifestyle and Occupation/Other Factors

## H-A-L-O

### Before you vaccinate adults, consider their “H-A-L-O”!

**What is H-A-L-O?** As shown below, it's an easy-to-use chart that can help you make an *initial* decision about vaccinating a patient based on four factors—the patient's Health condition, Age, Lifestyle, and Occupation. In some situations, though, you can vaccinate a patient without considering these factors. For example, all adults need a dose of Tdap as well as annual vaccination against influenza, and any adult who wants protection against hepatitis A or hepatitis B can be vaccinated. Note that not all patients who mention one or more H-A-L-O factors will need to be vaccinated. Before you make a *definitive* decision about vaccinating your patient, it's important that you refer to the more detailed information found in the Immunization Action Coalition's "Summary

of Recommendations for Adult Immunization," located at [www.immunize.org/catg.d/p2011.pdf](http://www.immunize.org/catg.d/p2011.pdf) or the complete vaccine recommendations of the Centers for Disease Control and Prevention's Advisory Committee on Immunization Practices (ACIP) at [www.cdc.gov/vaccines/pubs/ACIP-list.htm](http://www.cdc.gov/vaccines/pubs/ACIP-list.htm).

**How do I use H-A-L-O?** Though some H-A-L-O factors can be easily determined (e.g., age, pregnancy), you will need to ask your patient about the presence or absence of others. Once you determine which of the factors apply, scan down each column of the chart to see at a glance which vaccinations are *possibly* indicated (they are shown with a check mark).

H-A-L-O checklist of factors that indicate a possible need for adult vaccination

Vaccine	Health factors								Age factors	Lifestyle factors						Occupational or other factors						
	Pregnant	Certain chronic diseases	Immunosuppressed (including HIV)	History of STD	Asplenia	Cochlear implant candidate/recipient	Organ Transplant (for some not listed in ACIP Recommendations on Immunization)	CSF leaks		Alcoholism	Born outside the U.S.	Men who have sex with men	Not in a long-term, mutually monogamous relationship	User of injecting or non-injecting drugs	International traveler	Close contact of international adoptee	Cigarette smoker	College students	Parent or caregiver of a young child	Healthcare worker	Certain lab workers	Adults in institutional settings (e.g., chronic care, correctional)
HepA		✓									✓		✓	✓	✓						✓	
HepB		✓	✓	✓						✓	✓	✓	✓	✓					✓			✓
Hib		✓	✓		✓																	
HPV (females)									Through 26 yrs													
HPV (males)			✓						Routine through 21 yrs; risk-based 22–26 yrs		✓											
IPV														✓								✓
Influenza	Annual vaccination is recommended for all adults.....>																					
Meningococcal		✓			✓									✓			✓				✓	
MMR			?						Routine 1 dose if born after 1956; 2nd dose for some					✓			✓		✓			
PCV13		✓	✓		✓	✓	✓	✓														
PPSV23		✓	✓		✓	✓	✓	✓	65 yrs & older							✓						✓
Tdap	A single dose is recommended for all adults; pregnant women should receive Tdap during each pregnancy.....>																					
Varicella	Completion of a 2-dose series is recommended for non-pregnant adults through age 59 years who do not have evidence of immunity to varicella.....>																					
Zoster									60 yrs & older													

? = Vaccination may be indicated depending on degree of immunosuppression.





# Resources For Assessing Immunization Status of Your Patients

- ❑ Patient **check-in vaccine questionnaire** to be used at clinics: <http://www.cdc.gov/vaccines/hcp/patient-ed/adults/downloads/patient-intake-form.pdf>.
- ❑ **H-A-L-O** – vaccine needs questionnaire based on your patient’s **H**ealth condition, **A**ge, **L**ifestyle, and **O**ccupation at <http://www.immunize.org/catg.d/p3070.pdf>.
- ❑ Patient **on-line quiz** – direct patients to complete the quiz before coming to their appointment – gives them and you a starting point for talking about which vaccines they might need. <http://www2.cdc.gov/nip/adultimmsched/>.
- ❑ CDC adult **vaccine schedule app** at <http://www.cdc.gov/vaccines/schedules/hcp/schedule-app.html>.

## Adolescent and Adult Vaccine Quiz

### What Vaccines do **YOU** need?

Did you know that certain vaccines are recommended for adults and adolescents? Get information for people age 11 years and older.

#### Instructions:

1. **Complete** the quiz.
2. **Get a list of vaccines** you may need (*this list may include vaccines you may not need*).
3. **Discuss the vaccines with your doctor or healthcare professional.**

#### Part One, About You

1. Are you  
 Female  Male
2. For women only (Some vaccines can affect pregnancy.)  
 I could become pregnant  I am pregnant now



# Talking About Vaccines with Your Adult Patients

Aparna Ramakrishnan

Senior Health Communication Specialist, Northrup Grumman Contractor  
for CDC NCIRD Health Communication Science Office



## Key Research Findings

- ❑ Adults believe VPDs can be serious and vaccines are important, especially for certain groups.
- ❑ Awareness and knowledge of vaccines recommended for adults besides influenza is low.
- ❑ **HCP recommendation is #1 reported factor in influencing vaccination decisions, but adults perceive receiving few vaccine recommendations.**
- ❑ Adults are motivated to get vaccines to protect their own health and many would get a vaccine in order to protect loved ones as well.
- ❑ Adults do have some concerns about the safety and side effects of vaccines as well as questions about vaccine effectiveness and cost.

## What Adult Patients Want to Know

- How likely am I to get the disease?
- How serious could the disease be for me?
- How well the vaccine would work? Could I still get the disease?
- What are the side effects?
- How much will this cost me?

## IS THE VACCINE RIGHT FOR ME?

**Adults want TAILORED information to make an informed decision.**

## Vaccine Recommendation: Facilitating Factors

- ❑ Tailoring recommendations
- ❑ Providers sharing that they have been vaccinated
- ❑ Ongoing conversation about vaccines and continued reminders/recommendations
- ❑ Timing of recommendation
- ❑ Patient awareness and knowledge about vaccines

## Communication with Adults

- ❑ Stress the **relevance and importance** of timely vaccination for protection.
  - Highlight susceptibility: All adults are at risk for VPDs.
  - Explain severity and potential costs of getting VPDs.
- ❑ Use **empowering** messages and highlight the **benefits** of vaccination.
  - Getting vaccinated is part of staying healthy.
- ❑ Provide **transparent and plain language** information on VPDs and vaccines, including safety, efficacy, and how to get vaccinated.
- ❑ **Tailor** information as much as possible.

## SHARE Critical Information

- **S**hare the tailored reasons why the recommended vaccine is right for the patient given age, health status, lifestyle, job, or other risk factors.
- **H**ighlight positive experiences with vaccines to reinforce benefits and strengthen confidence in vaccination.
- **A**ddress patient questions and any concerns about vaccines, including side effects, safety, and vaccine effectiveness, in plain and understandable language.
- **R**emind patients that vaccines protect them and their loved ones from many common and serious diseases.
- **E**xplain the potential costs of getting VPDs, including serious health effects, time lost (such as missing work or family obligations), and financial costs.

# VACCINE RECOMMENDATION TIP SHEET

## 2

### Vaccine Recommendation

A Series on Standards for Adult Immunization Practice



Your recommendation is a critical factor in whether your patients get the vaccines they need.

**Routinely assess patient immunization status and strongly recommend vaccines that patients need, whether you stock the vaccines or not.**

**Recommending vaccines prompts most patients to get immunized.**

Research indicates that most adults believe that vaccines are important and are likely to get them if recommended by their healthcare professionals.

**For some patients, a clear and strong recommendation may not be enough. You can encourage these patients to make an informed decision about vaccination by sharing critical information.**

### SHARE

**SHARE** the tailored reasons why the recommended vaccine is right for the patient given his or her age, health status, lifestyle, occupation, or other risk factors.

**HIGHLIGHT** positive experiences with vaccines (personal or in your practice), as appropriate, to reinforce the benefits and strengthen confidence in vaccination.

**ADDRESS** patient questions and any concerns about the vaccine, including side effects, safety, and vaccine effectiveness in plain and understandable language.

**REMIND** patients that vaccines protect them and their loved ones from many common and serious diseases.

**EXPLAIN** the potential costs of getting the disease, including serious health effects, time lost (such as missing work or family obligations), and financial costs.

For tips on answering common patient questions and links to patient education materials, see back.

Information Series for Healthcare Professionals  
www.cdc.gov/vaccines/adultstandards

**U.S. vaccination rates for adults are extremely low.**

For example:

- Only 14% of adults 19 years or older have received Tdap vaccination.
- Only 20% of adults 60 years or older have received zoster (shingles) vaccination.
- Only 20% of adults 19 to 64 years old, at high risk, have received pneumococcal vaccination.
- Only 41% of adults 18 years or older had received flu vaccination during the 2012–2013 flu season.

Sources: NHR 2012 (MMWR 2014) 64(33)  
BPPSS 2012-2013 (www.cdc.gov/nf/fairshare)

For resources and tips on vaccine assessment, administration, referral, and documentation, visit:

www.cdc.gov/vaccines/adultstandards

**DON'T WAIT.  
VACCINATE!**



### Tips For Addressing Common Questions About Adult Vaccination

#### Do I really need vaccines?

All adults need immunizations to help prevent getting serious diseases that could result not only in poor health, but also missed work, medical bills, and not being able to care for their families.

- You may not have received all of your recommended childhood vaccines. Also, the protection from some vaccines you received as a child can wear off over time and you might need a booster (tetanus and whooping cough). Some vaccines are recommended based on your age, job, lifestyle, or health conditions. For example, adults with chronic conditions like asthma or COPD are at higher risk for complications from certain diseases like flu and pneumonia.
- Getting vaccinated not only reduces your chance of getting sick, but also reduces the chance that you will spread a serious disease to those around you—including those most vulnerable to severe illness (infants, older adults, and people with chronic health conditions and weakened immune systems).

**All adults need recommended vaccines.** Patients with chronic conditions such as asthma, COPD, diabetes, and heart disease are at increased risk for complications from certain diseases.

#### What are possible risks from adult vaccines?

- Side effects from vaccines are usually minor and temporary, such as feeling sore where you get the shot or a slight fever, which go away in a few days.
- Serious and long-term effects are rare.

#### Are adult vaccines safe?

Patients vary in their level of knowledge about immunization and their preferences for learning about them.

Find free education materials for your patients:  
www.cdc.gov/vaccines/AdultPatientEd

- Vaccines are one of the safest ways to protect your health.
- Vaccines go through thorough testing before they can be licensed by the Food and Drug Administration (FDA). Once a vaccine is licensed, this research is reviewed by medical and scientific experts to make recommendations on who should be vaccinated. Even after a vaccine is licensed, CDC and FDA continue to carefully monitor the safety of vaccines.
- It is safe to receive vaccinations while taking prescription medications. If you take medication that suppresses your immune system, you may not be able to get certain vaccines including MMR, varicella, and shingles vaccines.

#### How well do adult vaccines work?

- Vaccines work with the body's natural defenses to reduce the chances of getting certain diseases and suffering from their complications.
- The amount of protection you will get varies by vaccine and other factors like your age and health, but immunization is the best defense against many of these serious, and sometimes deadly, diseases.
- The greatest risk of vaccine-preventable diseases occurs among people who are not vaccinated.

For additional information on specific vaccines and resources to address other patient questions and concerns about immunization, visit: [www.cdc.gov/vaccines/hcp/adults](http://www.cdc.gov/vaccines/hcp/adults).

Last updated March 11, 2014



National  
Adult and  
Influenza  
Immunization  
Summit

# Addressing FAQs about Adult Vaccines

## Hepatitis B Vaccine

## Hepatitis A Vaccine

## Influenza (Flu) Vaccines

### Addressing Common Questions about Influenza Vaccination for Adults

#### What disease does flu vaccine protect against?

Seasonal influenza (flu) vaccines protect against the influenza viruses that research indicates will be most common during the upcoming season. Flu vaccines are made to protect against three or four different flu viruses, depending on the vaccine. The flu is a contagious respiratory disease that spreads around the United States every winter, usually beginning in October and lasting as late as May.

#### How common is this disease?

In the United States, each year on average 5% to 20% of the population gets the flu and more than 200,000 people are hospitalized from seasonal flu-related complications. Estimates of the number of flu-associated deaths in the United States range from a low of about 3,000 to a high of about 49,000 per year depending on the season.

#### How is this disease spread?

Flu can be spread mainly by droplets made when people with flu cough, sneeze, or talk. These droplets can land in the mouths or noses of people who are nearby. A person might also get flu by touching a surface or object that has flu virus on it and then touching their own mouth or nose.

#### Who is at risk for this disease?

Anyone can get the flu. Even healthy people can get sick with the flu and spread it to others. While everyone 6 months of age and older should get vaccinated each season, flu vaccination is especially important for persons who are at increased risk for severe complications from influenza. People who are at high risk of developing serious complications (like pneumonia) if they get sick with the flu include:

- People who have certain medical conditions including asthma, diabetes, and chronic lung disease
- Pregnant women
- Children younger than 5 (and especially those younger than 2 years old)
- People 65 years and older

A complete list is available at [People Who Are at High Risk of Developing Flu-Related Complications](https://www.cdc.gov/flu/about/disease/high_risk.htm) ([www.cdc.gov/flu/about/disease/high\\_risk.htm](https://www.cdc.gov/flu/about/disease/high_risk.htm)).

For more information on this and other vaccines for adults, visit [www.cdc.gov/vaccines/adults](https://www.cdc.gov/vaccines/adults).

#### What could happen if I get this disease?

Most people who get the flu will have mild illness, will not need medical care or influenza antiviral drugs, and will recover in less than two weeks. Although severe illness from flu infection can occur in persons of all ages, some people are more likely to get flu complications that result in hospitalization and occasionally death. Pneumonia, bronchitis, sinus infections and ear infections are examples of flu-related complications. Flu can also worsen heart disease, diabetes, and other chronic health problems.

Symptoms of flu come on suddenly and may last several days. They can include:

- Fever\* or feeling feverish/chills
- Sore throat
- Muscle aches
- Fatigue
- Cough
- Headache
- Runny or stuffy nose

\*It's important to note that not everyone with flu will have a fever.

**DON'T WAIT. VACCINATE!**



U.S. Department of Health and Human Services  
Centers for Disease Control and Prevention

## Pneumococcal Vaccines (PCV13 and PPSV23)

## Tdap/Td Vaccines

## Zoster (Shingles) Vaccine

### Addressing Common Questions about Shingles Vaccination for Adults

#### What disease does this vaccine protect against?

The zoster vaccine protects against shingles, which is caused by the varicella zoster virus, the same virus that causes chickenpox. The virus from chickenpox stays in your body and can cause shingles many years after chickenpox infection occurs.

#### How common is this disease?

One out of three people in the United States will get shingles in their lifetime, and at least 1 million people per year have it. Shingles is far more common in people 60 years of age and older than in younger people. Shingles is also more common in people whose immune systems are weakened because of a disease such as cancer, or drugs such as steroids or chemotherapy.

#### How is this disease spread?

You can't catch shingles from another person with shingles. After a person recovers from chickenpox, the varicella zoster virus stays dormant (inactive) in the body. For reasons that are not fully known, the virus can reactivate years later, causing shingles. However, a person who has never had chickenpox (or chickenpox vaccine) could get chickenpox from someone with shingles.

#### Who is at risk for this disease?

Anyone who has had chickenpox may develop shingles; although rare, even children can get shingles. However, the risk of disease increases as a person gets older. About half of all cases occur among adults 60 years and older.

People who have medical conditions that keep their immune systems from working properly, such as certain cancers, including leukemia and lymphoma, and human immunodeficiency virus (HIV), and people who receive immunosuppressive drugs, such as steroids and drugs given after organ transplantation are also at greater risk of getting shingles.

#### What could happen if I get this disease?

Shingles is a very painful skin rash that forms blisters.

- A shingles rash usually appears on one side of the face or body and lasts from 2 to 4 weeks.
- Other symptoms of shingles can include fever, headache, chills, and upset stomach.
- For adults aged 60 years and older, about 1 out of 5 people with shingles will suffer from severe pain that can continue long after the rash clears up.
- Very rarely, a shingles infection can lead to pneumonia, hearing problems, blindness, brain inflammation (encephalitis), or death.

**DON'T WAIT. VACCINATE!**



U.S. Department of Health and Human Services  
Centers for Disease Control and Prevention

For more information on this and other vaccines for adults, visit [www.cdc.gov/vaccines/adults](https://www.cdc.gov/vaccines/adults).



# Medscape Module



## Case Presentations/Videos

1. Older Adult
  - Zoster
  - PCV13
2. Adult with Diabetes
  - Hep B
  - Influenza
3. Pregnant Woman
  - Tdap
  - Influenza

www.medscape.com

## How to Give a Strong Recommendation to Adult Patients Who Require Vaccination

Mary C. Anderson, MD; Marie T. Brown, MD; Marie-Michele Léger, MPH, PA-C; Aparna Ramakrishnan, MA, MSW | April 16, 2015

### Vaccination Care for Adults

Your recommendation is a critical factor in whether your patients receive the vaccines that they need. Research indicates that most adults believe that vaccines are important and are likely to receive them if recommended by their healthcare professionals (HCPs).

As a standard of practice,<sup>11</sup> all HCPs have the responsibility to routinely assess patient immunization status and to strongly recommend vaccines that patients need. Providers who don't stock vaccines should discuss needed vaccines with their patients, write a vaccine-specific recommendation, and then refer them to a clinic or pharmacy that provides vaccination services.

The first step in determining whether you need to discuss vaccines with your patient is assessing his or her vaccination status. Which of the following strategies has demonstrated efficacy for improving vaccine assessment?

- Standing orders
- Patient intake questionnaires
- Electronic health record prompts or reminders
- Immunization registries or information systems
- All of the above

Save and Proceed

### Vaccination Status Assessment

All of the strategies discussed here can help improve vaccine assessment, though a combination may be needed to ensure that patients' vaccine needs are routinely assessed and opportunities to vaccinate are not missed.

Standing orders or protocols for nursing staff to assess and administer needed vaccines save time and reduce missed opportunities for vaccination. Examples of standing orders for vaccines can be found at the Immunization Action Coalition (IAC) website.

[www.medscape.com/viewarticle/842874](http://www.medscape.com/viewarticle/842874)

# Patient Education Materials: Factsheets

**INFORMATION SERIES FOR ADULTS**

## Vaccines Know What You Need

ALL adults need vaccines to protect their health against common and diseases that can be serious. There are four things to consider in determining which vaccines are recommended for you:

1. **Age**
2. **Health status**
3. **Travel**
4. **Occupation**

**1. You may be at risk for serious diseases that are still common in the U.S.**

Each year thousands of adults in the United States suffer serious health problems from diseases that could be prevented by vaccine — some people are hospitalized, and some even die. People with heart disease and those who have suffered stroke are at higher risk for serious problems from certain vaccine-preventable diseases.

**2. You can get it.**

Vaccine Vaccines of germs that cause these diseases. There are prevent with we are exposed.

**3. You can get it.**

Even he sick you being v

**Getting vacci**

- Adults c
- Common provider

**Most be**

- Check w
- Provide
- Informa
- As long
- Should r
- Visit. 103

**Vaccines are:**

- Vaccine licensed FDA can
- Vaccine side effects are
- Vaccine people, should I weaken vaccinat

**3 Important Reasons For Adults to Get Vaccinated**

You may not realize that you need vaccines throughout your adult life. Vaccines are still important to your health and here are just three reasons why.

**INFORMATION SERIES FOR ADULTS**

## What You Need to Know About Shingles and the Shingles Vaccine

In the U.S., currently 1 million people get shingles every year, and about one out of every three people will get shingles in their lifetime.

**What is shingles?**

Shingles, also known as zoster or herpes zoster, is a painful skin rash caused by the varicella zoster virus, the same virus that causes chickenpox. If you've had chickenpox, you are at risk of getting shingles.

- One out of every three people 60 years old or older will get shingles.
- One out of six people older than 60 years who get shingles will have severe pain. The pain can last for months or even years.
- The most common complication of shingles is severe pain where the shingles rash was. This pain can be debilitating. There is no treatment or cure for this pain. As people get older, they are more likely to develop long-term pain as a complication of shingles and the pain is likely to be more severe.
- Shingles may also lead to serious complications involving the eye. Very rarely, shingles can also lead to pneumonia, hearing problems, blindness, brain inflammation (encephalitis), or death.

**Protect Yourself Against Shingles**

Adults 60 years old or older should talk to their healthcare professional about getting a one-time dose of the shingles vaccine.

- The shingles vaccine can reduce your risk of shingles and the long-term pain it can cause.
- Persons who have already had shingles or who have a chronic medical condition can receive the shingles vaccine.
- In a clinical trial involving thousands of adults 60 years old or older, the vaccine reduced the risk of shingles by about half. Even if the shingles vaccine doesn't prevent you from getting shingles, it can still reduce the chance of having long-term pain.

Talk with your healthcare professional for more information and to find out if the shingles vaccine is right for you.


**When you get your shingles vaccine is a great time to talk about other vaccines you may need.**

**All adults need:**

- **Flu vaccine** every year to protect against seasonal flu
- **Tdap vaccine** to protect against tetanus, diphtheria, and pertussis (whooping cough)
- **Pneumococcal polysaccharide vaccine** to protect against serious pneumococcal diseases if you are 65 years or older

**There may be other vaccines recommended for you so be sure to talk with your healthcare professional.**

**Don't Wait. Vaccinate!**



**INFORMATION SERIES FOR ADULTS**

## What You Need to Know About COPD, Asthma and Adult Vaccinations

Each year thousands of adults in the United States suffer serious health problems from diseases that could be prevented by vaccine — some people are hospitalized, and some even die. People with heart disease and those who have suffered stroke are at higher risk for serious problems from certain vaccine-preventable diseases.

**Why adult va**

There are many r with COPD or ast

- Adults wil from the f
- COPD anc with muc preventat and lungi other seri make sur
- Tdap (wh

**Why Adult Diabetes**

Diabetes, even fight infection illness compar your healthc need.

- Some i high le
- People the jo month
- That's
- People indivi bring i the ca be

**Vaccines a your health**

- Vaccin license FDA cc
- Vaccine side ef Severe
- Vaccin fact, th chroni

**INFORMATION SERIES FOR ADULTS**

## What You Need to Know About Diabetes and Adult Vaccinations

Each year thousands of adults in the United States suffer serious health problems from diseases that could be prevented by vaccines — some people are hospitalized, and some even die. People with heart disease and those who have suffered stroke are at higher risk for serious problems from certain vaccine-preventable diseases.

**Why adult vaccines are important for you.**

There are many reasons why vaccines are especially important for people with heart disease and those who have suffered strokes. Here are just a few:

- Heart disease can make it harder for you to fight off certain diseases like the flu. **That's why a flu vaccine every year is important.**
- Some vaccine-preventable diseases, like influenza, can increase the risk of another heart attack. **That's why you should talk to your healthcare professional to make sure you have all the vaccines you need.**
- Heart disease also increases your risk of serious complications from certain illnesses such as pneumonia and influenza. **Certain types of pneumonia can be prevented by pneumococcal vaccines.**

**Vaccines are one of the safest ways to protect your health.**

- **Vaccines are tested and monitored.** Vaccines are tested before being licensed by the Food and Drug Administration (FDA). Both the Centers for Disease Control and Prevention (CDC) and FDA continue to monitor vaccines after they are licensed.
- **Vaccine side effects are usually mild and temporary.** The most common side effects include soreness, redness or swelling at the injection site. Severe side effects are very rare.
- **Vaccines are safe to get, even if you are taking prescription medications.** In fact, they are an important part of staying healthy even if you have a chronic condition like heart disease.

**What vaccines do you need?**

If you have heart disease there are a number of vaccines recommended for you:

**All adults need:**

- **Flu vaccine** every year to protect against seasonal flu
- **Tdap vaccine** to protect against tetanus, diphtheria, and pertussis (whooping cough)
- **Pneumococcal polysaccharide vaccine** to protect against serious pneumococcal diseases if you are 65 years or older

**There may be other vaccines recommended for you so be sure to talk with your healthcare professional.**

**Don't Wait. Vaccinate!**

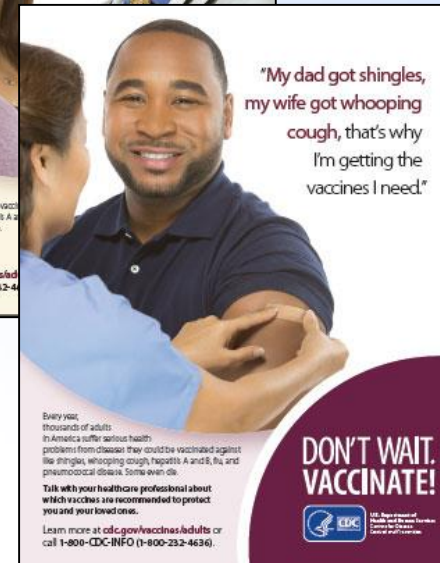
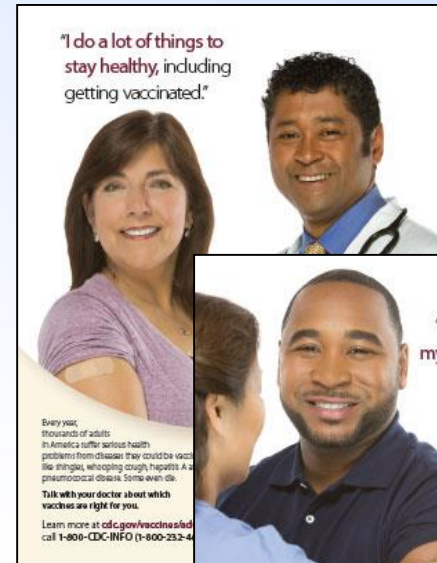


[www.cdc.gov/vaccines/AdultPatientEd](http://www.cdc.gov/vaccines/AdultPatientEd)



National  
Adult and  
Influenza  
Immunization  
Summit

# Patient Education Materials: Posters



[www.cdc.gov/vaccines/AdultPatientEd](http://www.cdc.gov/vaccines/AdultPatientEd)

# Patient Education Materials: Spanish Language

"Me vacuno porque es una parte importante de preservar la salud".



Cada año, miles de adultos en los Estados Unidos tienen graves problemas de salud por enfermedades contra las cuales se pudieron vacunar, como la culebrilla (shingles), la tosferina (whooping cough), la hepatitis A y B, la influenza (gripe) y neumonía. Algunos hasta mueren.

Hable con su médico sobre cuáles vacunas le recomiendan para protegerse y proteger a sus seres queridos.

Infórmese más en [www.cdc.gov/vaccines/adults/espanol](http://www.cdc.gov/vaccines/adults/espanol) o llame al 1-800-CDC-INFO (1-800-232-4636).

"Me vacuno para mantenerme saludable para mi familia".



Cada año, miles de adultos en los Estados Unidos tienen graves problemas de salud por enfermedades contra las cuales se pudieron vacunar, como la culebrilla (shingles), la tosferina (whooping cough), la hepatitis A y B, la influenza (gripe) y neumonía. Algunos hasta mueren.

Hable con su médico sobre cuáles vacunas le recomiendan para protegerse y proteger a sus seres queridos.

Infórmese más en [www.cdc.gov/vaccines/adults/espanol](http://www.cdc.gov/vaccines/adults/espanol) o llame al 1-800-CDC-INFO (1-800-232-4636).

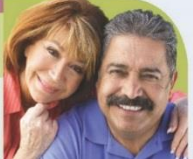
**NO ESPERE. ¡VACÚNESE!**



U.S. Department of Health and Human Services  
Centers for Disease Control and Prevention

**INFORMACIÓN PARA ADULTOS**

## 3 razones importantes por las que los adultos deben vacunarse



Quizás no sepa que necesita vacunas en diferentes etapas de la vida. Las vacunas siguen siendo importantes para su salud; las siguientes son tres razones de por qué.

1. Usted podría estar en riesgo de enfermedades graves que todavía son comunes en los Estados Unidos.

**SERIE DE INFORMACIÓN PARA ADULTOS**

## Vacunas Sepa lo que necesita

**TODOS** los adultos necesitan vacunas para proteger su salud contra enfermedades comunes y graves. Hay cuatro cosas que considerar al determinar cuáles vacunas son recomendadas para usted.

1. Las vacunas que necesitan **todos** los adultos.
2. Su **edad**.
3. Su **estado de salud, estilo de vida o trabajo**.
4. Los **viajes internacionales** que haga.

¡En su próxima visita a su profesional de salud pregunte cuáles vacunas son adecuadas para usted!


### 1. Vacunas que necesitan todos los adultos:

<p>Contra la influenza (gripe)</p> <p>Contra el tétanos, la difteria y la tosferina (pertussis o whooping cough) (Vacuna Tdap)</p> <p>Contra el tétanos y la difteria (vacuna Td)</p>	<p>¿QUIÉNT? Todos los adultos, incluso las mujeres embarazadas durante cualquier trimestre.</p> <p>¿CON QUÉ FRECUENCIA? Cada temporada de influenza.</p> <p>¿QUIÉNT? Todos los adultos que nunca recibieron la vacuna Tdap y las mujeres embarazadas.</p> <p>¿CON QUÉ FRECUENCIA? Todos necesitan recibir la Tdap alguna vez, sin importar cuándo se recibió la última vacuna contra el tétanos (Td). Las mujeres embarazadas necesitan una dosis de la Tdap durante cada embarazo. La vacuna Td, para proteger contra el tétanos y la difteria, se necesita cada 10 años.</p>
---	--

### 2. Vacunas que puede necesitar de acuerdo a su edad:

<p>Contra el virus del papiloma humano (VPH)</p> <p>Se recomienda si no ha recibido la serie completa de 3 inyecciones.</p> <p>Contra el sarampión, las paperas, la rubéola (Vacuna MMR)<sup>1</sup></p> <p>Se recomienda para ponerse al día si no se recibió cuando niño.</p> <p>Contra la enfermedad neumocócica (neumonía, meningitis)</p> <p>Contra el herpes zóster (culebrilla o shingles)</p> <p>Contra la varicela<sup>2</sup></p> <p>Se recomienda para ponerse al día si no se recibió cuando niño</p>	<p>¿QUIÉNT? Mujeres de 26 años o menos Hombres de 21 años o menos Hombres de 26 años o menos si tienen sistemas inmunitarios debilitados o el VIH o tienen relaciones sexuales con hombres.</p> <p>¿CON QUÉ FRECUENCIA? Una serie de tres dosis una vez.</p> <p>¿QUIÉNT? Adultos que nacieron en los Estados Unidos en 1957 o después y que no recibieron la vacuna MMR, o que han tenido pruebas que muestran que no tienen inmunidad al sarampión, las paperas o la rubéola.</p> <p>¿CON QUÉ FRECUENCIA? Una vez para la mayoría de los adultos; sin embargo, ciertas personas como estudiantes universitarios, viajeros internacionales o profesionales de la salud deben aplicarse dos dosis.</p> <p>¿QUIÉNT? Adultos de 65 años o más</p> <p>¿CON QUÉ FRECUENCIA? Una vez</p> <p>¿QUIÉNT? Adultos de 60 años o más</p> <p>¿CON QUÉ FRECUENCIA? Una vez</p> <p>¿QUIÉNT? Adultos que nacieron en los Estados Unidos en 1980 o después y que nunca recibieron los dos dosis de la vacuna o que nunca tuvieron varicela.</p> <p>¿CON QUÉ FRECUENCIA? Una serie de dos dosis una vez</p>
---	--

**NO ESPERE. ¡VACÚNESE!**



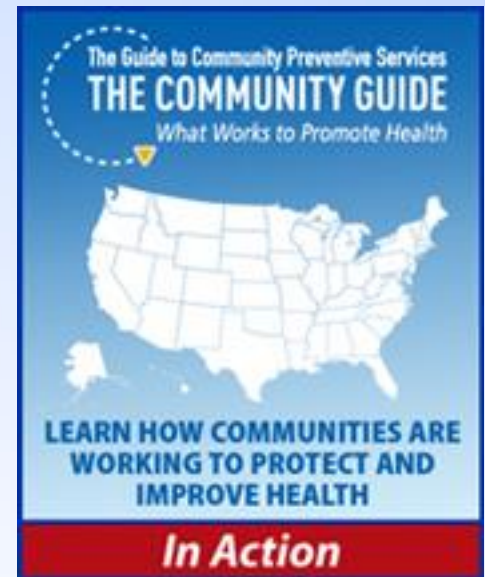
U.S. Department of Health and Human Services  
Centers for Disease Control and Prevention

<sup>1</sup> LAS VACUNAS VPH contienen una serie de 3 dosis, una que se debe recibir a los 11 o 12 años de edad y dos más a los 16 o 18 años de edad. Las vacunas VPH no se deben administrar a quienes ya hayan recibido una o más dosis de VPH. Consulte con su profesional de salud para obtener más información. <sup>2</sup> La vacuna de la varicela se recomienda para quienes nacieron en los Estados Unidos el 1 de mayo de 2005 o después.

# Resources & Lessons Learned for Increasing Immunization Rates

# Evidence-Based Strategies for Increasing Immunization Rates

- ❑ **Strategies shown to improve vaccine uptake in healthcare settings:**
  - Patient education (e.g. email reminders from providers plus provider recommendations)
  - Use of standing orders
  - Use of reminder-recall systems
  - Efforts to remove administrative barriers
  - Provider and practice assessment of vaccination and feedback
  - Use of immunization registries



# Meta-Analysis of Interventions to Increase Use of Adult Immunization

Intervention	Odds Ratio*
Organizational change (e.g., standing orders, separate clinics devoted to prevention)	16.0
Provider reminder	3.8
Patient financial incentive	3.4
Provider education	3.2
Patient reminder	2.5
Patient education	1.3

\*Compared to usual care or control group, adjusted for all remaining interventions



# Raising Immunization Rates: Lessons Learned

**Evidence-based strategies  
+ human champion(s)  
= Results**

**“It’s hard.”**

# Know Your Immunization Rates

**Automatic, no more chart-pulls.**

**Watching rates over time**

**“Determined to have been vaccinated”**

# Working the Data Sources

## Electronic health records

## Immunization Information Systems

<http://www.cdc.gov/vaccines/programs/iis/index.html>

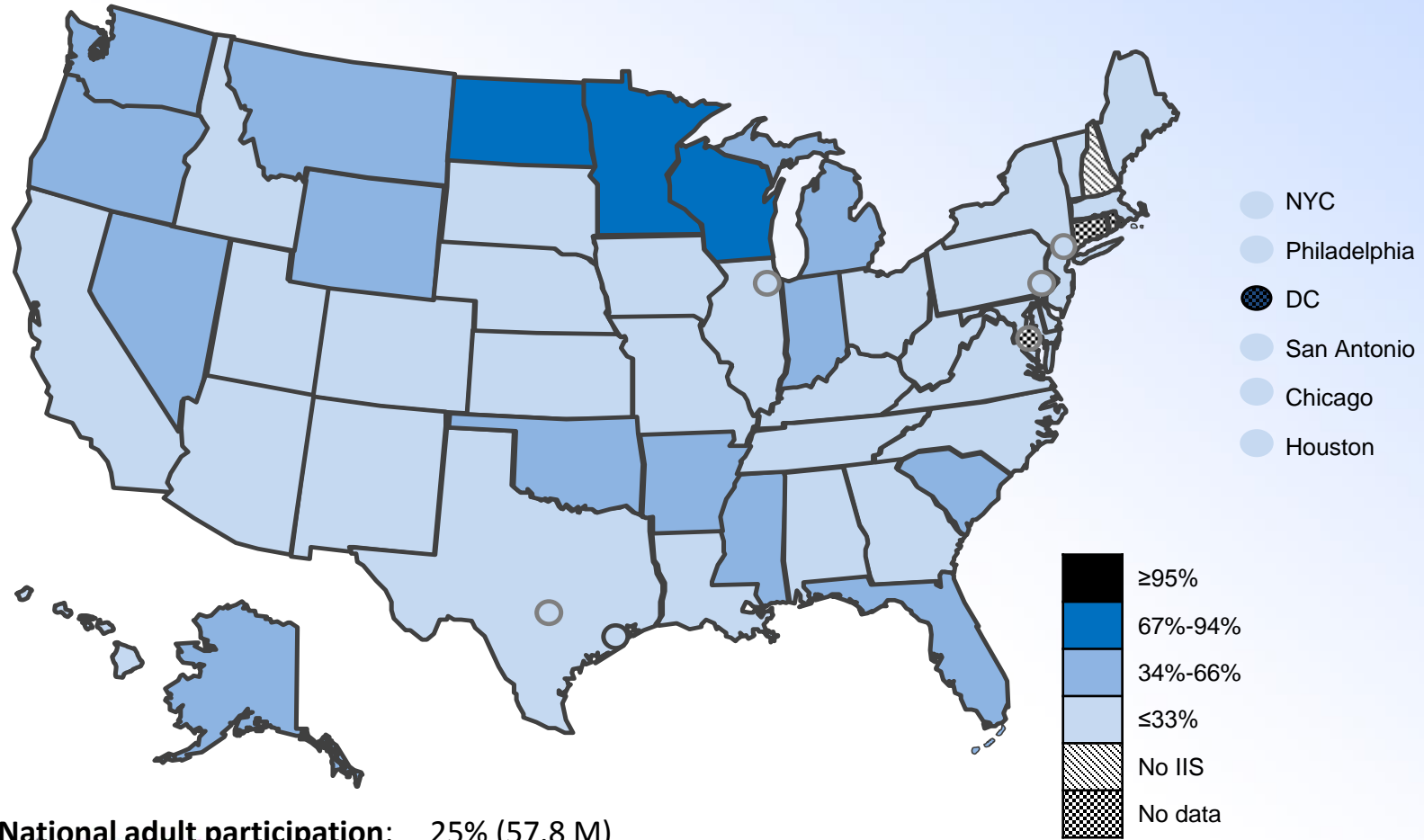
## Billing Data

Coding Resources:

<http://immunizationforwomen.org/providers/practice-management/coding.php>

<http://www.aafp.org/practice-management/payment/coding/admin.html>

# Percentage of adults aged $\geq 19$ years participating\* in an Immunization Information System (IIS) – United States, five cities<sup>+</sup>, and the District of Columbia, 2012



National adult participation: 25% (57.8 M)

\*Participation is defined as having one or more vaccinations administered during adulthood recorded in the IIS  
<sup>+</sup>Chicago, Illinois; Houston, Texas; New York, New York; Philadelphia, Pennsylvania; and San Antonio, Texas.



# Contact Your State IIS

**Contact your state's immunization information system:**

*<http://www.cdc.gov/vaccines/programs/iis/contacts-registry-staff.html>*

For instructions on how to access the IIS

For help and troubleshooting

For tips and techniques specific to your state.

## Clinical Decision Support

*<http://www.cdc.gov/vaccines/programs/iis/cdsi.html>*



# People Power

**The Champion**  
**The IT Specialist**  
**The Naysayer**  
**The Team**

## **One Example:**

*American Pharmacists Association Immunization Champion Awards*

# Carrots and Sticks

## Incentives that Resonate:

e.g. meeting maintenance of certification requirements,  
patient centered medical home certification.

## Penalties to Avoid:

Not just financial.

Avoid negative patient outcomes like reduced hospitalization  
Unnecessary or not-billable immunizations

# Immunization as a Winning Proposition for Providers

medconcert®

from [American College of Physicians with CE City](https://www.medconcert.com/Signin)  
<https://www.medconcert.com/Signin>



American Board  
of Medical Specialties

*Higher standards. Better care.®*

Maintenance of Certification Part IV  
Practice Performance Assessment

[www.abms.org](http://www.abms.org)

***Patient-Centered Medical Home***

[aafp.org/practice-management](http://aafp.org/practice-management)



National  
Adult and  
Influenza  
Immunization  
Summit

# What's Motivating?

## Learning Collaboratives and Peer-to-peer Learning

## Healthy Competition: High Performers and Low Performers

# Multiple Approaches

- ❑ The Community Guide tells us multiple approaches work better than a single approach.

One example:

## The 4 Pillars™ Immunization Toolkit

from [University of Pittsburgh](http://www.4pillarstoolkit.pitt.edu/)  
<http://www.4pillarstoolkit.pitt.edu/>

# Resources From Professional Provider Organizations on Adult Immunization

## ❑ American Academy of Family Physicians

<http://www.aafp.org/patient-care/immunizations/schedules.html>: vaccination info plus CME opportunities

## ❑ American College of Obstetricians and Gynecologists

[www.immunizationforwomen.org](http://www.immunizationforwomen.org) information about vaccines for pregnant and non-pregnant women, vaccine coding and other business practices

## ❑ American College of Physicians

<http://immunization.acponline.org/> “Doctors for adults”, quality improvement, resources for practical application

## ❑ American Pharmacists Association

<http://www.pharmacist.com/immunization-resources>. Multiple resources, training and tools for pharmacists on immunizations, including immunization certificate training

## ❑ Infectious Diseases Society of America

<http://www.idsociety.org/Immunization/>. Recommendations specifically for immune compromised persons.

# Resources From Immunization Action Coalition

## [www.immunize.org](http://www.immunize.org)

Clinic Resources: Coding, Billing, Scheduling, Documenting

[www.immunize.org/clinic](http://www.immunize.org/clinic)

Adult Vaccination Guide:

[www.immunize.org/guide/](http://www.immunize.org/guide/)

## Adults Only Vaccination: A Step-by-Step Guide



# Discussion Questions

- What is going to help you increase adult immunization rates?
- Are there specific challenges that providers are facing in communicating about vaccines with adult patients?

**Thank you.**

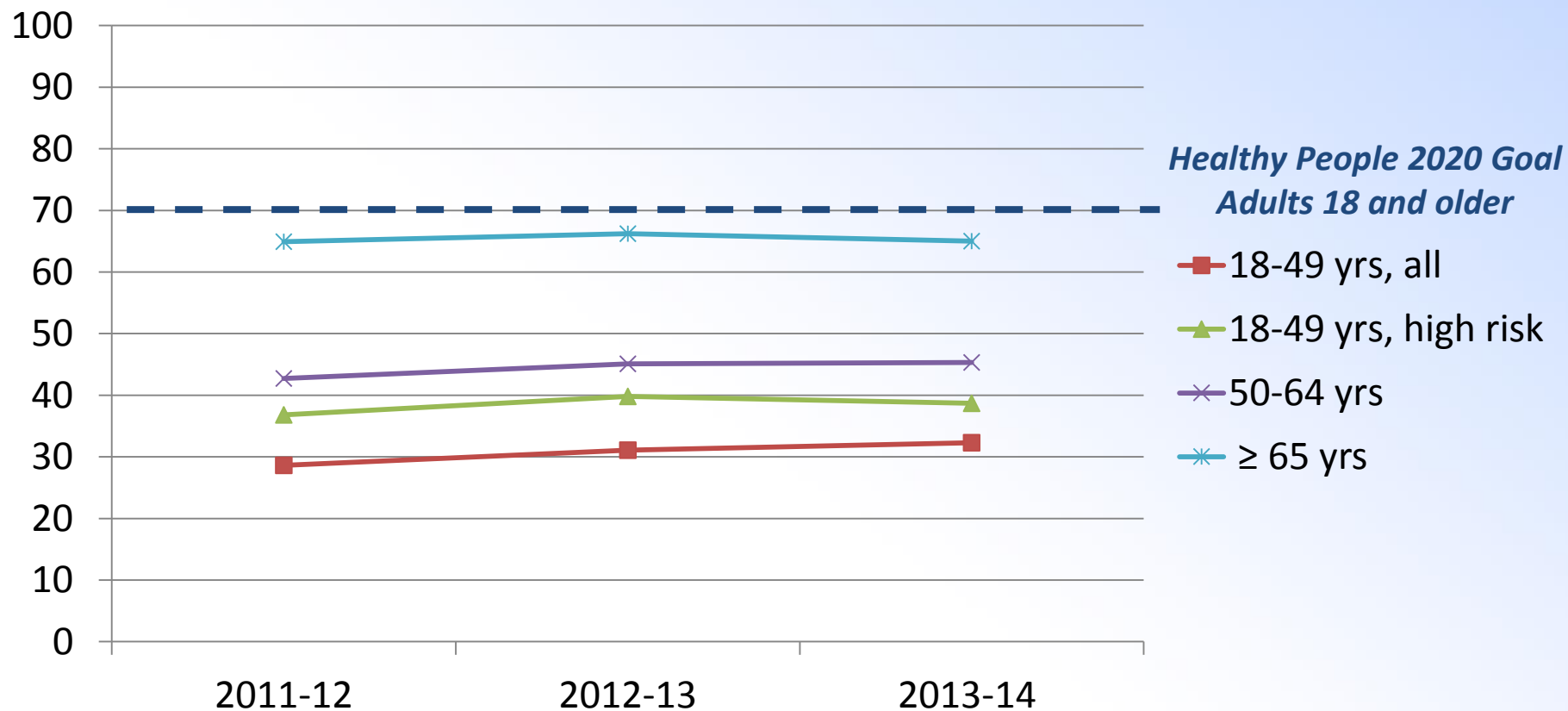
**For more information: [sfarrall@cdc.gov](mailto:sfarrall@cdc.gov)**

# Supplemental Slides

Extra slide which may be useful for some audiences



# Influenza Vaccination Rates by Age Group and Risk Group, BRFSS 2011-14



# Impact of Vaccine Preventable Diseases in People

**Shingles:** "I would rather have ten babies than the pain I've endured for the past ten years," says 87-year-old Etta Watson Zukerman of Bethesda, Md., who has lost partial use of her right arm and hand due to nerve damage from postherpetic neuralgia (PHN).



Courtesy MN Oxman San Diego VAMC



**Hepatitis B:** "One day without warning, my brother, who was 18, woke up with severe pain in his abdomen. When we took him to the doctor, we were told that he and my mother were hepatitis B carriers. My brother passed away a year later. One month after his death, my mother was diagnosed with liver cancer." Leslie D. Hsu

CDC/ Patricia Walker, M.D., Regions Hospital, MN

**Pertussis:** Callie stopped breathing again. Family members watched helplessly from behind a glass wall as doctors tried for 45 minutes to revive her. Tragically, Callie could not be saved. She was only 5 weeks old. "We never dreamed we'd lose her," Katie said. "Callie was a more loved, more wanted baby than you'd ever find."



CDC website 53

# Meet Joan: Special Education Teacher

## *“The Pain of Shingles”*

- Joan developed severe pain in her back and the doctors could not initially figure out what was wrong then the rash started several days later.
- She had contracted shingles, but not the traditional rash that is common to many at disease onset.
  - In some cases, rash happens after the pain
- The pain was so severe it kept her awake at night. Joan says that she would have sought vaccination if she had known it was recommended.



*“If I had known that a vaccine is recommended for everyone my age, I would have gotten it. Believe me, if you could understand the pain of shingles, you’d get the vaccine, too.”*

# Jacob Ryan Schmidt:

## A competitive martial arts expert

### *“A Son’s Life Cut Short by Influenza”*

- Jacob was strong as a bull and enjoying life.
- In 2010, at the age of 27, he succumbed to complications from H1N1 influenza.
- His lungs collapsed; he developed an infection. His organs were shutting down. After about five weeks of influenza ravaging his body, Jacob died.



“Jacob was not someone you’d expect to fall ill to influenza. He was healthy and athletic, and built like a freight train.”

# Meet Dr. William Cochran: A Pediatric Gastroenterologist

## *“A Doctor’s Personal Experience with Whooping Cough”*

- Dr. Cochran came down with a severe cough where he could not catch his breath and would even pass out.
- He coughed so long and hard that he cracked several ribs.
- He learned that he had pertussis or “whooping cough”
- It took him three months to recover.



“Anyone – doctor, parent, grandparent, caregiver, who comes into contact with infants should be sure they are up to date on their immunizations to spare those too young to be protected through vaccination .”

# Raising awareness about disparities in adult immunizations

- ❑ **Overall coverage remains below HP2020 targets**
  - 90% for 65+ years for pneumococcal vaccine
  - 60% for high risk 19-64 years for pneumococcal vaccine
  - 30% for 60+ years for Zoster vaccine
  - 90% for hepatitis B vaccine for healthcare personnel
- ❑ **Some improvement from 2012**
  - Modest increases for HPV (men, 19-26), Tdap ( $\geq 19$  year olds), and herpes zoster ( $\geq 60$  year olds) vaccines
  - No improvements for other vaccines
- ❑ **Racial and ethnic disparities remain**
- ❑ **Much remains to be done to increase vaccine utilization among adults and to eliminate disparities**

# Impact of Vaccination

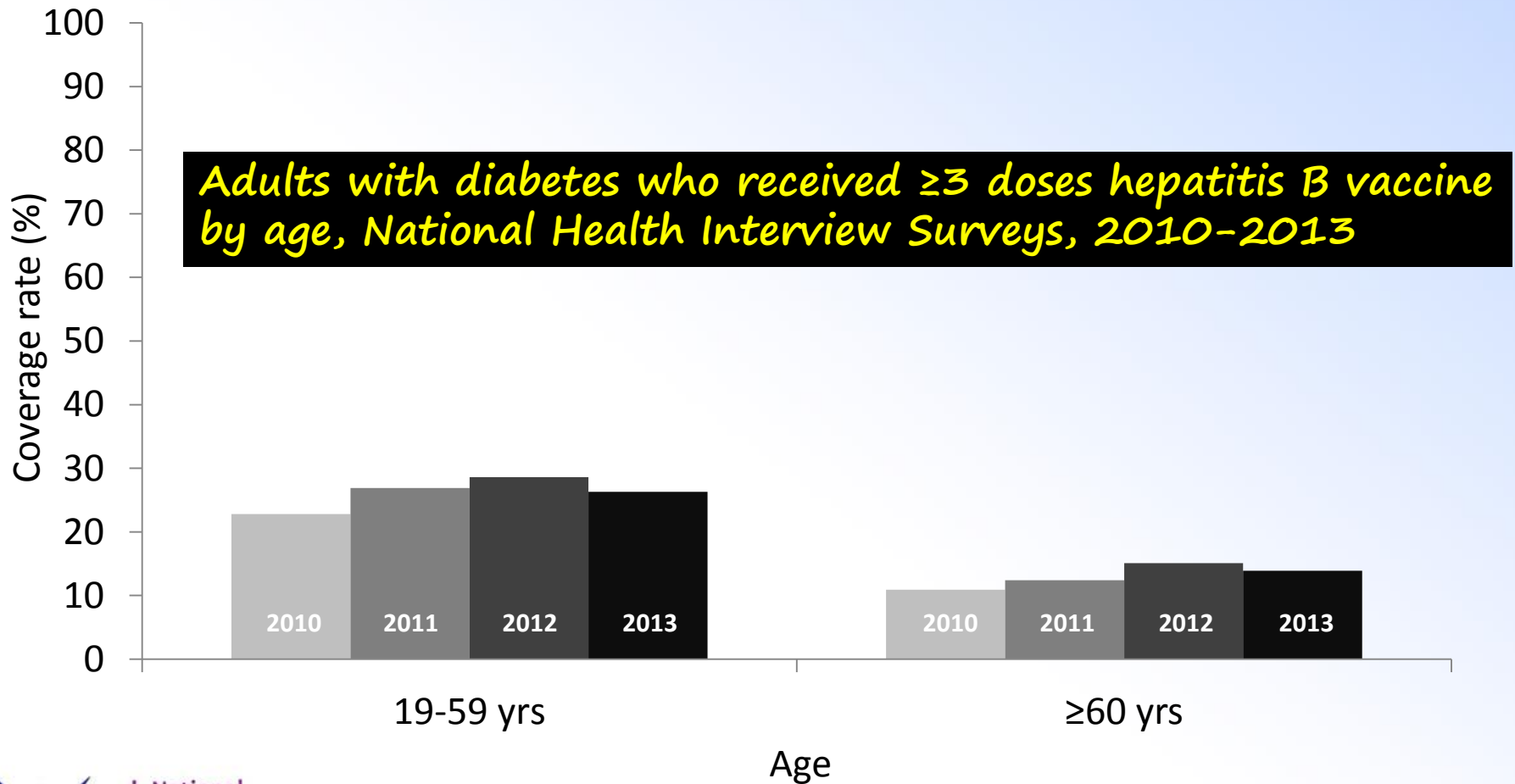
- ❑ **Vaccine effectiveness varies by vaccine type, the disease outcome, and the age or health of the person vaccinated**
  - Zoster (Shingles) vaccine effectiveness: 51% against shingles, 66% against post-herpetic neuralgia (PHN), and almost 80% against most prolonged and extreme cases of PHN<sup>1</sup>
  - PCV13 (pneumococcal conjugate vaccine): 45% efficacy against vaccine-type pneumococcal pneumonia, and 75% efficacy against vaccine-type invasive pneumococcal disease among adults aged ≥65 years<sup>2</sup>
  - Influenza vaccine: varies annually based on antigenic match and also age and health of person being vaccinated – about 60–70% in younger adults and about 30% in adults 65 years and older against medically attended influenza when good match<sup>3</sup>
  - Hepatitis B vaccine: 90% effectiveness after completing a 3-dose series, though lower in persons with diabetes, e.g. 90% with diabetes and age <40 years, 80% with diabetes and 41–59 years, 65% if 60–69 years and <40% if 70 years or older<sup>4</sup>

1. Oxman MN, et al. NEJM 2005;352:2271-84.
2. Bonten MJ, et al. NEJM 2015;372:1114-25.
3. CDC. Prevention and Control of Seasonal Influenza: Recommendations of the ACIP – U.S., 2014-15 Influenza Season. MMWR 2014; 63(32); 691-697.
4. CDC. Use of hepatitis B vaccine for adults with diabetes mellitus. MMWR 2011;60:1709-1711.

# Vaccination Coverage Rates



# Hepatitis B Vaccination for Adults Living with Diabetes



# Improvements in Some Adult Immunizations

