



IDDSA

Infectious Diseases Society of America

Adult Immunizations

“Room to Improve”

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Infectious Diseases Society of America (IDSA)

- IDSA represents over 10,000 physicians and scientists specializing in infectious disease patient care, research, and prevention.
- Reducing preventable illnesses, hospitalizations and deaths through immunization of adults and persons of all ages is a long standing priority for our members and our organization.
 - IDSA’s “Actions to Strengthen Adult and Adolescent Immunization Coverage in the United States” outlines principles for increasing adult immunization: <http://cid.oxfordjournals.org/content/44/12/e104.full>.
 - IDSA is an organizing sponsor of the National Adult & Influenza Immunization Summit (NAIIS), a diverse group of stakeholders devoted to advancing policies to improve adult vaccine coverage.



What Vaccines Do Older Adults Need?

What Vaccines Do Adults Need?

- Vaccines routinely recommended for **older adults** include:
 - Influenza vaccine
 - Pneumococcal polysaccharide vaccine (PPSV23)
 - Tetanus-diphtheria-acellular pertussis* (Tdap), and
 - Zoster (shingles) vaccine
- Other vaccines are recommended for adults either at specific ages or who are at increased risk for a specific disease, including: hepatitis A, MMR, pneumococcal conjugate vaccine, meningococcal disease and the cancer-preventing hepatitis B and HPV vaccines

** If not vaccinated previously during adulthood*

What Vaccines Do Adults Need?

Recommended Adult Immunization Schedule—United States - 2013

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

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

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 or by telephone, 800-822-7967.

Information on how to file a Vaccine Injury Compensation Program claim is available at 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 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.

What Vaccines Do Adults Need?

VACCINE ▼	INDICATION ►	Pregnancy	Immuno-compromising conditions (excluding human immunodeficiency virus [HIV]) ^{4,6,7,10,15}		HIV infection CD4+ T lymphocyte count ^{4,6,7,10,14,15}		Men who have sex with men (MSM)	Heart disease, chronic lung disease, chronic alcoholism	Asplenia (including elective splenectomy and persistent complement deficiencies) ^{10,14}	Chronic liver disease	Kidney failure, end-stage renal disease, receipt of hemodialysis	Diabetes	Healthcare personnel
			< 200 cells/μL	≥ 200 cells/μL									
Influenza ^{2,*}			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) ^{3,*}		1 dose Tdap each pregnancy	Substitute 1-time dose of Tdap for Td booster; then boost with Td every 10 yrs										
Varicella ^{4,*}		Contraindicated				2 doses							
Human papillomavirus (HPV) Female ^{5,*}		3 doses through age 26 yrs				3 doses through age 26 yrs							
Human papillomavirus (HPV) Male ^{5,*}		3 doses through age 26 yrs				3 doses through age 21 yrs							
Zoster ⁶		Contraindicated				1 dose							
Measles, mumps, rubella (MMR) ^{7,*}		Contraindicated				1 or 2 doses							
Pneumococcal polysaccharide (PPSV23) ^{8,9}						1 or 2 doses							
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- Recommended if some other risk factor is present (e.g., on the basis of medical, occupational, lifestyle, or other indications)
- No recommendation

These schedules indicate the recommended age groups and medical indications for which administration of currently licensed vaccines is commonly indicated for adults ages 19 years and older, as of January 1, 2013. 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/pubs/acip-list.htm). 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.



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



US Childhood Vaccine Program: The Kids are Alright

US Childhood Vaccine Program: Great Success

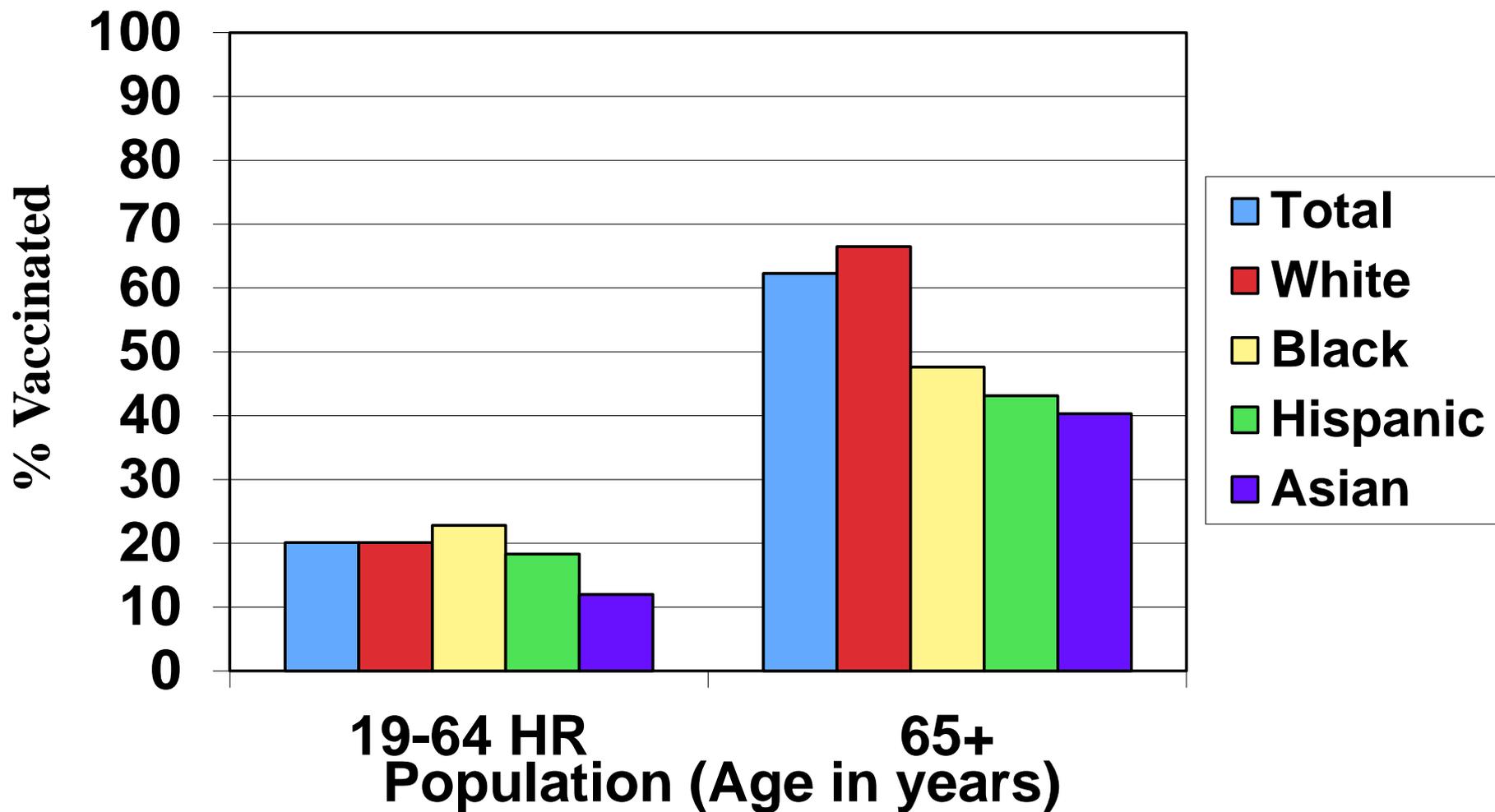
- High vaccine coverage and dramatic reduction (and in some cases elimination) of serious childhood diseases
- Largely eliminated health disparities
- Child vaccination coordinated by public health, publically-supported program (Vaccines for Children)
- Adults: Low immunization coverage, persisting disparities.
 - Many features of our successful child immunization program can and should be applied to the problem of under-immunization in adults.

Immunization Coverage Among Adults is Low

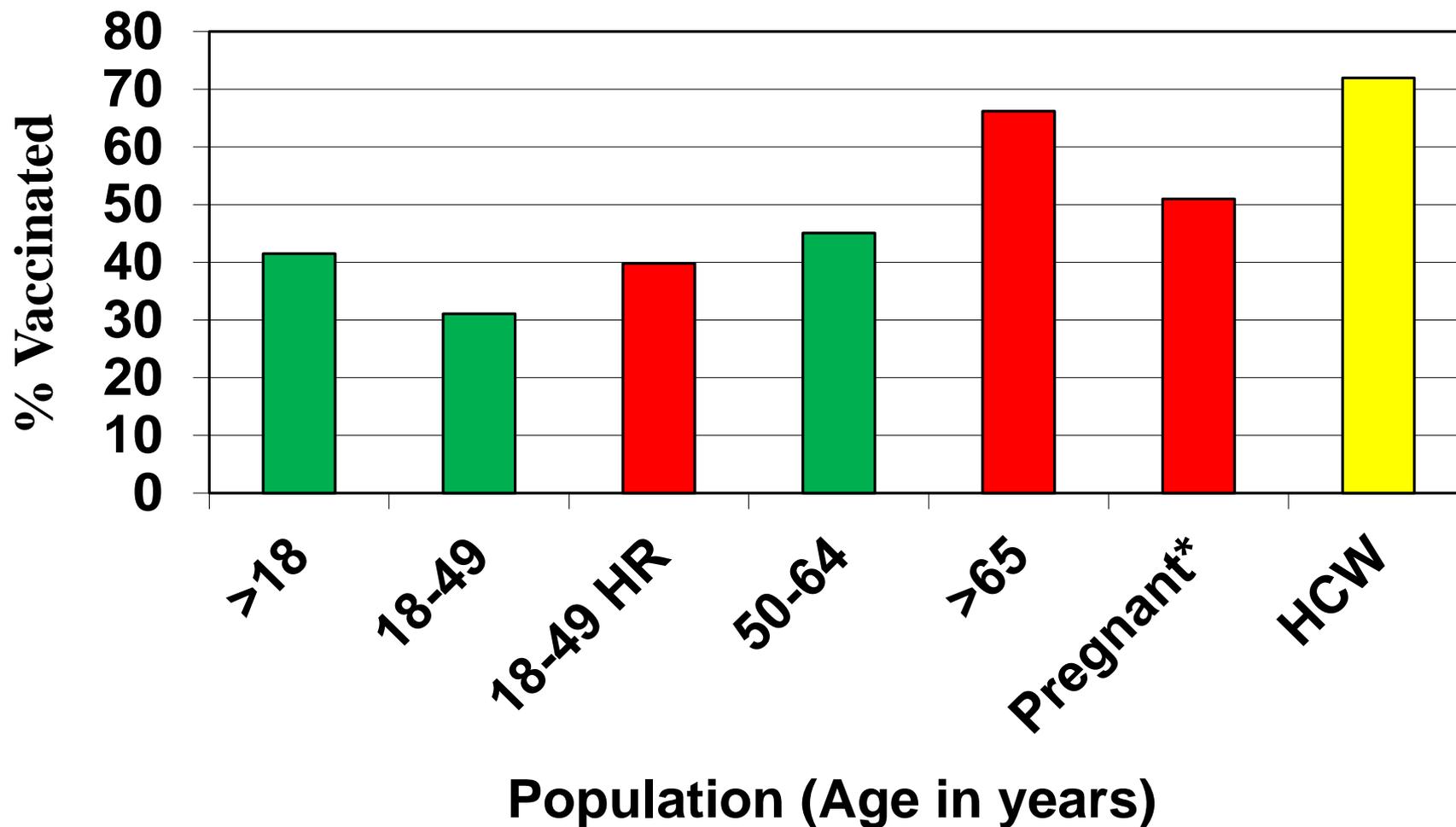
- Almost 40% of adults 65 and older and 80% of high risk adults 19-64 years of age have NOT received the pneumococcal polysaccharide vaccine.
- Only 66% of adults 65 and above and 42% of all adults received the influenza vaccine last season
- 80% of adults for whom HZ vaccine is recommended have NOT received it
- Significant health disparities exist among racial and ethnic groups with respect to adult vaccine coverage rates.

Pneumococcal Vaccine Coverage Among US Adults

National Health Interview Survey, 2011

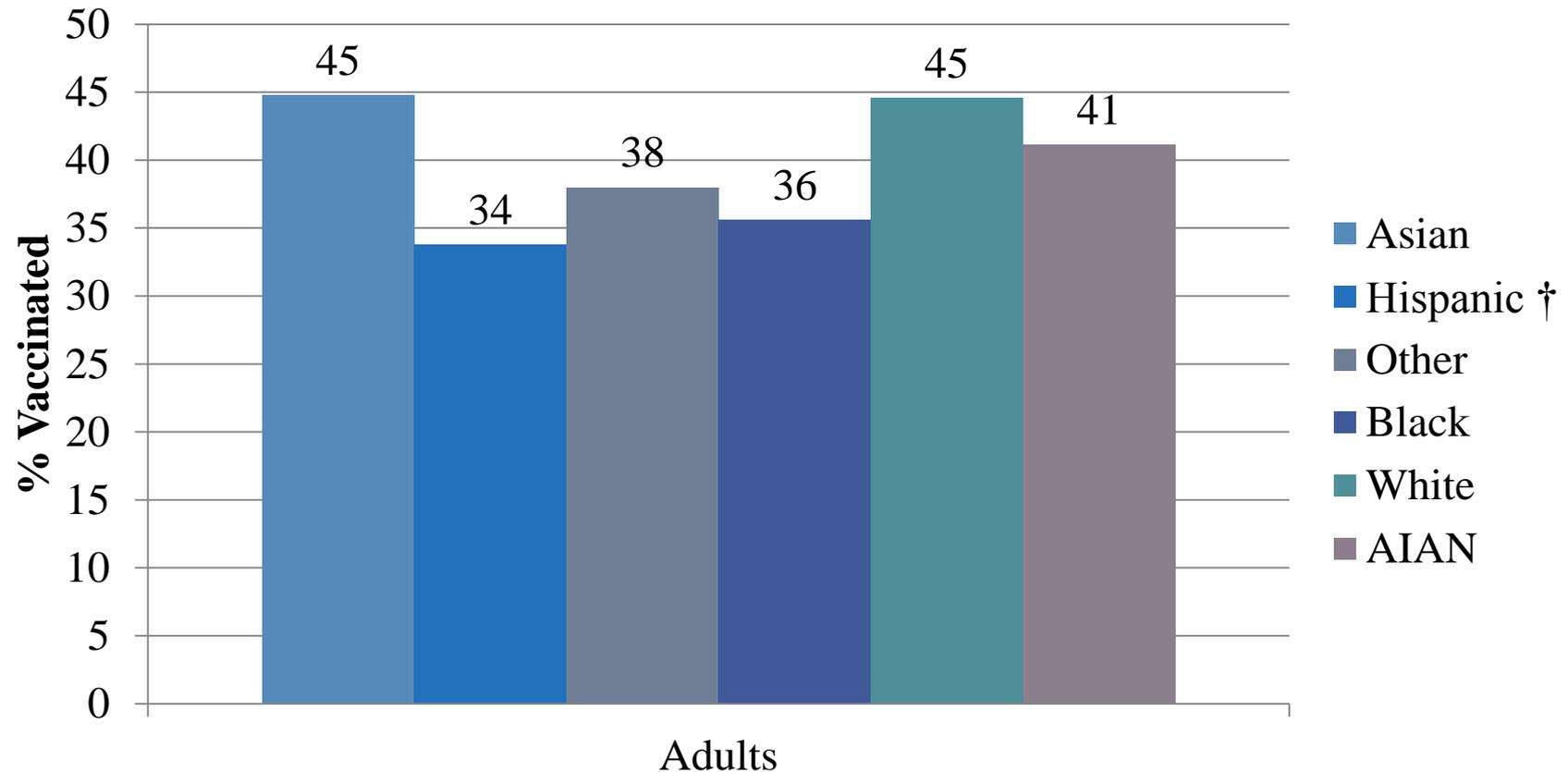


Influenza Vaccine Coverage Among US Adults: 2011-12



Influenza Vaccination Coverage by Race, Ethnicity

2012-13 Season

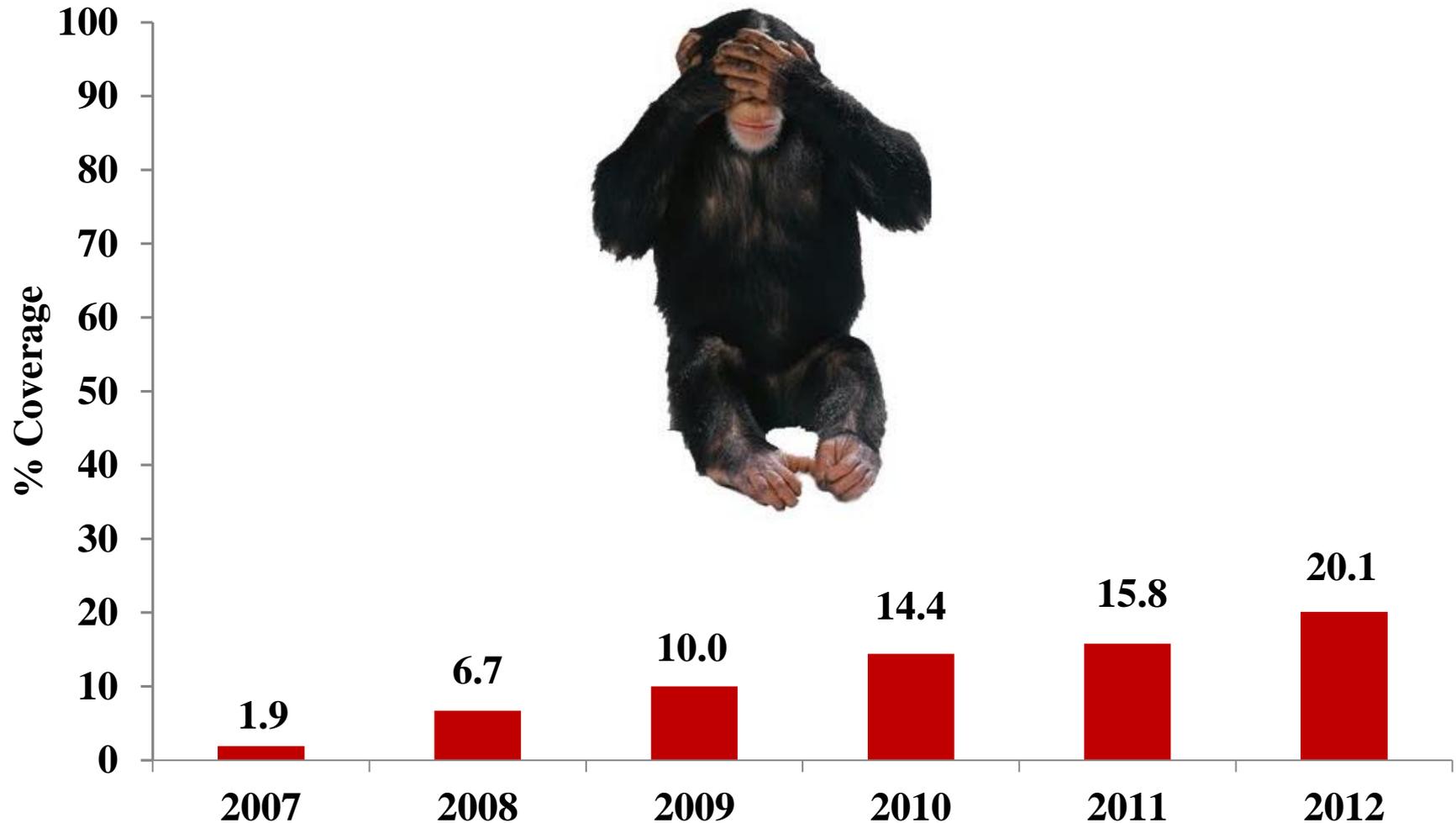


* **Statistically significant difference compared to non-Hispanic whites**

† Other racial/ethnic groups exclude Hispanics

Sources: National Immunization Survey (NIS) (6 months-17 years) and Behavioral Risk Factor Surveillance System (BRFSS) (≥ 18 years)

Herpes Zoster (Shingles) Vaccine Coverage Among US Adults National Health Interview Survey, 2008-2012



Herpes Zoster (Shingles) Vaccine

- An estimated 1 million adults will develop zoster each year.
- About half of all cases strike people 60 or older
- Half of all persons living to 85 years or older will suffer an episode of shingles.
- Severe complications of shingles increase with age, including debilitating PHN and hospitalization.
 - At the recent ACIP meeting in OCT, ACIP reaffirmed its recommendation to vaccinate adults 60 years of age and older.
- Unfortunately, unnecessary barriers prevent older adults from being able to access the vaccine to prevent zoster and its severe complications



Policy Barriers and Solutions

The Coverage Debacle: Medicare Parts B & D

- Part B (Physician) benefits: Cover influenza, pneumococcal and in some circumstances, hepatitis B and Tdap vaccinations
- Part D (Pharmacy) benefits: Cover all remaining recommended immunizations (with varying co-pays)
- Split coverage creates inequities across Medicare patient population because not all beneficiaries have Part D coverage and co-pays are inconsistent across Part D plans, making some vaccines unaffordable for seniors
- Imposes significant administrative challenges for patients, physicians, and pharmacists

Additional Barriers

- The Affordable Care Act (ACA) ACA makes important progress in expanding first-dollar Medicare coverage for most preventive services.
- However, ACA only requires **private** insurance plans provide first-dollar coverage for ACIP-recommended vaccines and does not require this of Medicare and other publicly-funded coverage plans.
- Paradoxically, many older adults with Medicare coverage and at highest risk for VPDs have inferior access to recommended vaccines.

What Can Be Done?

- IDSA supports the reintroduction and passage of the “Immunization Improvement Act”, sponsored by Senator Reed of Rhode Island.
- The legislation was introduced in 2012 but has not yet been reintroduced this Congress.
- The bill would make needed improvements by removing several barriers to vaccination of Medicare beneficiaries and healthcare workers.
- Importantly, the bill would authorize Part D and Part B coverage of immunizations that are recommended by ACIP, and would eliminate copayments and waive deductibles for these vaccines.

Barriers: Infrastructure & Standards

- The US currently lacks an effective, coordinated national adult immunization program.
- Key gaps and needed actions described in the 2011 *“Recommendations of the National Vaccine Advisory Committee on A Pathway to Leadership for Adult Immunization”*
- 2013 NVAC *Standards for Adult Immunizations*
 - <http://www.hhs.gov/nvpo/nvac/reports/nvacstandards.pdf>
 - Infrastructure to realize standards lacking

Barriers: Infrastructure & Standards

- Needed: A comprehensive and coordinated strategy to improve adult immunization coverage via strong national leadership and provision of adequate resources to address key priorities.
- Examples include:
 - Improving access to recommended vaccines through both the medical home and nontraditional settings (e.g., pharmacy, workplace)
 - Addressing funding and reimbursement barriers to receipt of recommended vaccines
 - Improving the use of evidence-based practices at medical sites (e.g., standing orders, reminder or recall notification), and use of immunization information systems (registries)

Barriers: Infrastructure & Standards

- Developing adult immunization program infrastructure in state and local health departments to improve:
 - Access to immunizations
 - Provider knowledge, awareness, and competence regarding adult immunization delivery
 - Understanding of vaccine coverage gaps and disparities
 - Collaborate with key stakeholders including patients, health care providers, insurers and the private sector to improve adult immunization coverage.
 - Adoption of immunization information systems

Improving Adult Immunization Coverage

- Promote widespread adoption of standardized adult immunization **performance measures**
 - *“May be the single most important health policy tool for improving health care” (Haywood, NEJM 2007)*
- The [Veterans Administration] performance measurement program was associated with increases in [influenza and pneumococcal] vaccination rates, reduced variation, and reduced pneumonia admissions. (*Jha, et al. American Journal of Public Health 2007*)



Vaccine Innovation, Research & Development

Vaccine Innovation, Research & Development

- Support basic scientific research to understand the aging immune system (immunological response to vaccination).
- Prominent example: Unsatisfactory protection provided to older adults by currently available influenza vaccines.
 - Prioritize support for development of improved types of influenza vaccines, a process that can take many years.
 - In the meantime, IDSA recognizes that currently influenza vaccines offer the best available protection and strongly supports their use according to ACIP guidance.

Vaccine Innovation, Research & Development

- Promote *Product Development Partnerships*
 - Private sector (industry), public sector, academia
- Adopt *Target Product Profiles for vaccine development*
 - Incentivize vaccine manufacturers to take public health considerations into account in vaccine development
 - Define desired characteristics and uses of vaccines to be developed, such as:
 - Target populations, indications
 - Level and duration of protection
 - Safety
 - Stability, storage, handling considerations

Vaccine Innovation, Research & Development

- IDSA supports government action to **stimulate innovation** for vaccines, drugs, and diagnostics that fill a public health need (BARDA-like model).
- Federal **subsidies and other market incentive mechanisms** such as tax credits and streamlined regulatory review should be considered.
- Adequate funding must also be provided for **health services research**.
 - Studies should focus on public and provider acceptance of vaccines, including evaluation of safety concerns and other underlying factors that contribute to delays in the acceptance or refusal of recommended vaccines.