Recommended Adult Immunization Schedule United States, 2009 Proposed Revisions

Advisory Committee on Immunization Practices
October 22-23, 2007





Adult Immunization Working Group

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- Richard Clover
- Jeff Duchin
- Kristen Ehresmann
- Stanley Gall
- Pierce Gardner
- Kristen Nichol

- Greg Poland
- Joni Reynolds
- William Schaffner
- Marcia Shew
- Jean Haulman
- Stephen Foster
- Litjen Tan
- Diane Petersen
- Richard Zimmerman
- Gina Mootrey (CDC staff)

*WG chair





Adult Immunization Working Group Current Activities

- Monthly calls
 - Schedule revisions
 - Focus groups on usefulness of Adult Schedule
- Separate calls with the General Recommendations Working Group
 - Adult section





Assessment of Adult Immunization Schedule

- Investigators
 - Matthew Davis, Dianne Singer, Sarah Clark (U of MI)
- Objectives
 - Evaluate health-care providers' application of the 2007-08 adult immunization schedule
 - Identify opportunities for improvement of the schedule
- Methods
 - Conducted focus groups in 8 community-based private practices (family medicine and internal medicine) in 6 metropolitan areas, during January-April 2008
 - 88 respondents: physicians (34%), nurse practitioners (4%), physician assistants (1%), nurses (24%), medical assistants (37%)





Assessment of Adult Immunization Schedule

- Major findings
 - 22% almost always ask about immunization status
 - 47% occasionally or never ask
 - 45% very comfortable using adult immunization schedule
 - 17% have never seen schedule
 - ~1/3 correctly identified recommended vaccines in 3 clinical vignettes





Assessment of Adult Immunization Schedule

- Participant suggestions for changes
 - Improve formatting to reduce confusion
 - Clarify or expand content
 - Especially for new vaccines
 - Develop other versions
 - E.g., online point and click ability, online decision tool
- Suggestions included in 2009 schedule
 - Legend for blank cells, age groups more distinct, clarify and simplify Td/Tdap graphic presentation





Adult Immunization Working Group Future Activities

- Publish Recommended Adult Immunization Schedule January 2009
- Complete revision of Health Care Personnel Recommendations, with HICPAC
- Incorporate Adult Immunization Recommendations (1991) into the next General Recommendations





Proposed Changes Adult Immunization Schedule 2009





Recommended Adult Immunization Schedule



by Vaccine and Age Group

UNITED STATES • OCTOBER 2007-SEPTEMBER 2008

VACCINE ▼ AGE GROUP ▶	19-49 years	50-64 years	<u>≥</u> 65 years			
Tetanus, diphtheria, pertussis (Td/Tdap) ^{1,*}	1 dose Td booster every 10 yrs					
Human papillomavirus (HPV) ^{2,*}	3 doses females (0, 2, 6 mos)					
Measles, mumps, rubella (MMR) ^{3,*}	1 or 2 doses	1 dose				
Varicella ^{4,} *	2 doses (0, 4–8 wks)					
Influenza ^{5,} *	1 dose annually					
Pneumococcal (polysaccharide) ^{6,7}	1–2 do	ses	1 dose			
Hepatitis A ^{8,*}	2 doses (0, 6–12 mos or 0, 6–18 mos)					
Hepatitis B ^{9,*}	3 doses (0, 1-2, 4-6 mos)					
Meningococcal ^{10,} *	1 or more doses					
Zoster ¹¹			1 dose			

^{*}Covered by the Vaccine Injury Compensation Program. NOTE: These recommendations must be read with the footnotes (see reverse).

For all persons in this category who meet the age requirements and/or who lack evidence of immunity (e.g., lack documentation of vaccination or have no evidence of prior infection)

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

This schedule indicates the recommended age groups and medical indications for routine administration of currently licensed vaccines for persons aged ≥19 years, as of October 1, 2007. 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).

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, 24 hours a day, 7 days a week.

Enhancements Age Group Schedule and Box

- Increased number of age groups from 3 to 5
 - 19-26 years
 - 27-49 years
 - 50-59 years
 - 60-64 years
 - 65 years and older
- Removed vaccination schedule text from vaccine bars
 - Schedule information remains in the footnotes
- Td/Tdap
 - Deleted hatched yellow bar for Tdap
 - Added text to explain when Td or Tdap indicated





Recommended Adult Immunization Schedule DRAFT

UNITED STATES - 2009

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

VACCINE ▼ AGE GROUP ▶	19–26 years	27-49 years	50-59 years	60–64 years	≥65 years	
Tetanus, diphtheria, pertussis (Td/Tdap) ^{1,*}	Substitute 1-time de	ose of Tdap for Td I	pooster; then boost v	vith Td every 10 yr	Td booster every 10 yrs	
Human papillomavirus (HPV) ^{2,*}	3 doses (females)					
Varicella ^{3,*}			2 doses			
Zoster ⁴			1 dose		ose	
Measles, mumps, rubella (MMR) ^{5,*}	1 or 2 doses		1 dose			
Influenza ^{6,*}	1 dose annually					
Pneumococcal (polysaccharide) ^{7,8}	1 or 2 doses			1 dose		
Hepatitis A ^{9,*}	2 doses					
Hepatitis B ^{10,*}	3 doses					
Meningococcal ^{11,*}	1 or more doses					

(e.g., lack documentation of vaccination or have no evidence of prior infection)

occupational, lifestyle, or other indications)

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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.

Enhancements Age Group Schedule and Box

Order of vaccines revised

Legend box for blank spaces in schedule





Recommended Adult Immunization Schedule DRAFT

UNITED STATES - 2009

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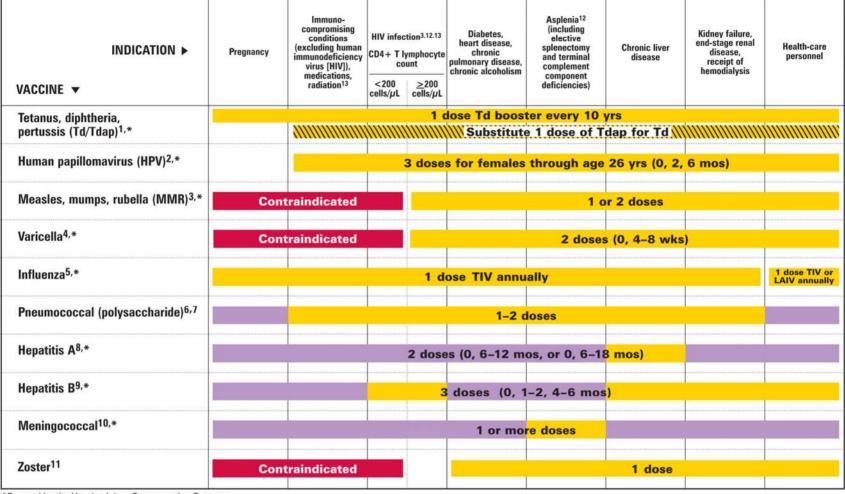
VACCINE AGE GROUP AGE GROUP	19–26 years	27-49 years	50-59 years	60–64 years	≥65 years	
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overed by the Vaccine Injury Compensation Program	n. For all persons in this requirements and who (e.g., lack documents no evidence of prior i	category who meet the age o lack evidence of immunity ation of vaccination or have nfection)	nresent (e.g., on	some other risk factor is the basis of medical, style, or other indications)	No recommenda	

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Figure 2. Vaccines that might be indicated for adults based on medical and other indications United States, October 2007 – September 2008



^{*}Covered by the Vaccine Injury Compensation Program.

For all persons in this category who meet the age requirements and who lack evidence of immunity (e.g., lack documentation of vaccination or have no evidence of prior infection)

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

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 October 1, 2007. 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 (https://www.cdc.gov/vaccines/pubs/acine-list.html).





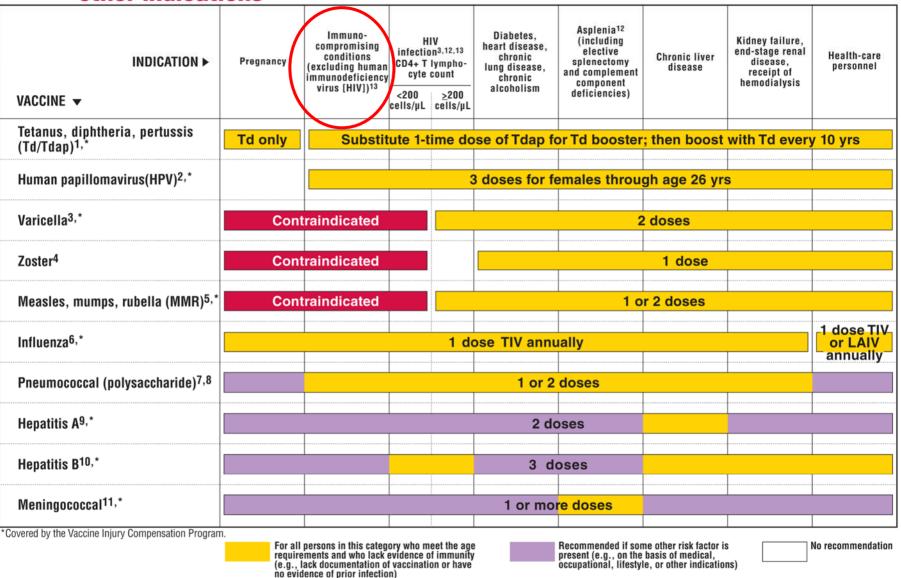
Medical and Other Indications Schedule Enhancements

 Revised column heading for immunocompromising conditions by deleting the words "medication, radiation"





Figure 2. Vaccines that might be indicated for adults based on medical and other indications



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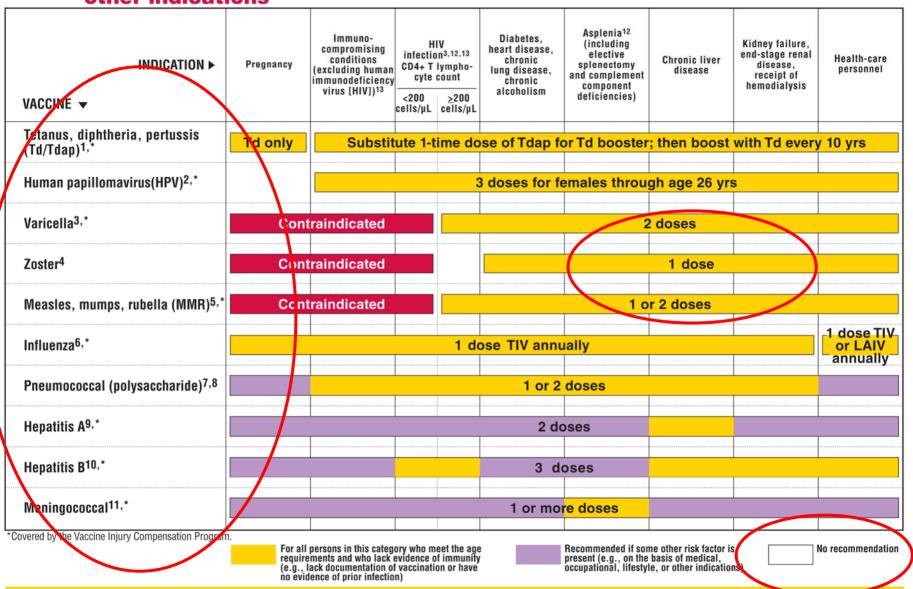
Medical and Other Indications Schedule Enhancements

- Order of vaccines revised
- Removed vaccination schedule text from vaccine bars
 - Schedule information remains in the footnotes
- Legend box for blank spaces in schedule





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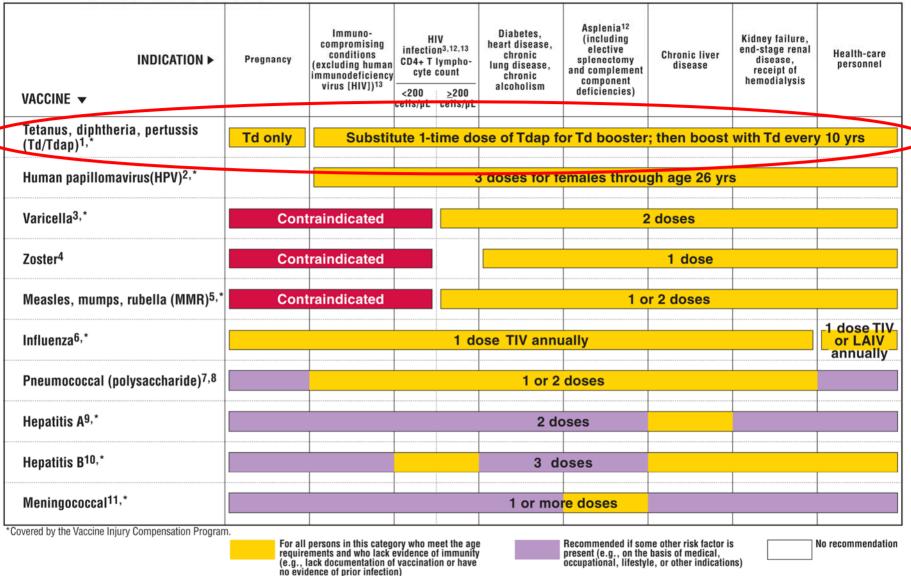
Medical and Other Indications Schedule Enhancements

- Td/Tdap
 - Deleted hatched yellow bar for Tdap
 - Added text to explain when Td or Tdap indicated
 - Added text to clarify that only Td indicated during prenancy





Figure 2. Vaccines that might be indicated for adults based on medical and other indications



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, 2009. 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).



General Footnote Enhancements

- Replaced symbols with text
 - <12 months now less than 12 months</p>





Human Papillomavirus (HPV) Footnote #2 has been revised to:

- Mention vaccine can be given to females as young as 9 years
 - HPV vaccination is recommended for females 11 through 26 years (and as young as 9 years) who have not completed the vaccine series.





Human Papillomavirus (HPV) Footnote #2 has been revised to:

 Mention that health-care personnel are not at increased risk due to occupational exposure

 Health-care personnel are not at increased risk due to occupation exposure, and should be vaccinated consistent with age-based recommendations.





Varicella Footnote #3 has been revised to:

- Clarify when one or two doses are indicated
 - All adults without evidence of immunity to varicella should receive 2 doses of single-antigen varicella vaccine if not previously vaccinated or the second dose if they have received only one dose unless they have a medical contraindication. Adults who previously received only 1 dose of varicella vaccine should receive a second dose.





Varicella Footnote #3 has been revised to:

- Add verification of herpes zoster by a health-care provider as a requirement for evidence of immunity
 - Evidence of immunity to varicella in adults includes any of the following: 4) history of herpes zoster based on health-care provider diagnosis or verification of herpes zoster by a health-care provider





Measles, Mumps, Rubella Footnote #5 has been revised to:

- Clarify mumps second dose recommendation
 - A second dose of MMR is recommended for adults who 1) live in a community experiencing a mumps outbreak and are in an affected age group





Influenza Footnote #6 has been revised to:

- Clarify occupational indications to include all health-care personnel and add caregivers
 - All health-care personnel, including those employed by long-term-care and assistedliving facilities, and caregivers of children less than 5 years old





PPV Footnote # 7 has been revised to:

 Include asthma as a chronic lung disease indication

 Medical indications: Chronic lung disease (including asthma);





Hepatitis A Footnote #9 has been revised to:

- Include additional information for the 4dose combined hepatitis A and hepatitis B vaccine
 - If the combined hepatitis A and hepatitis B vaccine (Twinrix®) is used, administer 3 doses at 0,1, and 6 months; alternatively, a 4-dose schedule, administered on days 0,7, and 21 to 30 followed by a booster dose at month 12 may be used





Hepatitis B Footnote #10 has been revised to:

- Include additional information for the 4dose combined hepatitis A and hepatitis B vaccine
 - If the combined hepatitis A and hepatitis B vaccine (Twinrix®) is used, administer 3 doses at 0,1, and 6 months; alternatively, a 4-dose schedule, administered on days 0,7, and 21 to 30 followed by a booster dose at month 12 may be used





Hepatitis B Footnote #10 has been revised to:

- Clarify schedule information for special formulation indications
 - For adult patients receiving hemodialysis or with other immunocompromising conditions, 1 dose of 40 µg/mL (Recombivax HB®) administered on a 3-dose schedule or 2 doses of 20 µg/mL (Engerix-B®) administered simultaneously on a 4-dose schedule at 0,1,2 and 6 months





Meningococcal Disease Footnote # 11 has been revised to:

- Clarify that revaccination might be indicated after 5 years
 - Revaccination after 5 years might be indicated for adults previously vaccinated with MPSV who remain at increased risk for infection (e.g., persons residing in areas in which disease is epidemic)





Thank you!

Questions?



